



# How implicit racial bias and concern about appearing racist shape K-12 teachers' race talk with students

Linda R. Tropp<sup>1</sup> · Christina L. Rucinski<sup>1,2</sup> 

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## Abstract

Researchers and educators have increasingly recognized the importance of classroom discussions about race and racism—*race talk*—for student development, yet teachers often face significant psychological barriers to engaging students in race talk. This research draws on two large samples of U.S. K-12 teachers to examine how teachers' implicit racial biases and concerns about appearing racist may correspond with their intentions to engage and confidence about engaging students in race talk. Across both studies, teachers' greater implicit racial bias predicted lower intentions to engage students in race talk, yet it did not predict their confidence about engaging students in race talk. By contrast, concern about appearing racist predicted both lower intentions and confidence about engaging students in race talk, above and beyond the contributions of implicit racial bias and other teacher- and school-related factors. These findings highlight the need to address both implicit biases and concerns about appearing racist in teacher training and professional development, in order to support teachers and enhance their capacity to engage students in race-related discussions.

## 1 Introduction

At the same time as conservative lawmakers and media outlets seek to stoke fear and undermine teachers' capacity to talk about race with their students (see Geonzon & Davison, 2021; Thompson & Hollingsworth 2022), researchers and educators have increasingly recognized the importance of classroom discussions about race and

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✉ Christina L. Rucinski  
crucinski@umass.edu

<sup>1</sup> Department of Psychological and Brain Sciences, University of Massachusetts Amherst, 01003 Amherst, MA, United States

<sup>2</sup> EmbraceRace, Amherst, MA, United States

racism—*race talk*—for student development (Milner, 2017; Sue, 2015). Research suggests that facilitating substantive discussions about race in school and classroom contexts can promote improved intergroup attitudes as well as enhanced racial literacy among students (Hughes et al., 2007; Skinner & Meltzoff, 2019). Yet more than ever, teachers are hesitant to talk about race with students and may attempt to avoid race-related conversations during classroom instruction, despite knowing how valuable such conversations can be (Meckler & Natanson, 2022). Indeed, considerable gaps exist between teachers' beliefs that discussing race with students is important and their reports of feeling prepared to engage in such conversations (Milner, 2017). Thus, even teachers who see value in talking about race may not feel prepared or confident about navigating race talk in their own classrooms.

Drawing on two large samples of K-12 teachers in the U.S., the present research investigated two psychological challenges that may correspond with teachers' curbed intentions to engage their students in race talk. The first involves teachers' *implicit racial bias* (IRB), or unconsciously held associations with racial groups (Banaji & Greenwald, 2013) that have been linked to teacher practice in prior research (Denesen et al., 2022; Warikoo et al., 2016). A second challenge involves teachers' *concern about appearing racist* (CAR), or their fears of being perceived as racially prejudiced by their students or others (Alvarez & Milner, 2018; Palmer & Louis, 2017). By focusing on these implicit and explicit aspects of teachers' psychology around race, we aim not to blame teachers but rather to identify malleable factors that could be foci for teacher training and professional development, to support and empower teachers as they engage students in race talk in their classrooms.

## 1.1 Teacher hesitance to engage students in race talk

Despite growing recognition of the need for race talk, many educators remain hesitant or feel ill-equipped to facilitate race-related conversations themselves (Milner, 2017). Qualitative studies indicate White educators in particular are often resistant to engaging in deep discussions about race (Buchanan, 2015) and tend to avoid addressing race-related topics due to fears of being uncomfortable, being perceived as racist, upsetting or offending students, losing control of the classroom, and/or facing backlash from parents or administrators (Alvarez & Milner, 2018; Palmer & Louis, 2017; Sue, 2015). Moreover, if and when teachers do talk about race with students, they may experience ambivalence about doing so, as well as a lack of confidence in their ability to navigate such discussions successfully (Buehler et al., 2009). In the present quantitative research, we focus on two psychological factors that may present particular challenges for teachers who seek to engage in race talk with their students: *implicit racial bias* and *concern about appearing racist*.

### 1.1.1 Implicit racial bias

Implicit racial bias (IRB) is generally understood to represent unconscious social-cognitive associations we have with certain racial groups, which are learned and reinforced through cues in our social environments (Banaji & Greenwald, 2013). Classroom teachers have been shown to exhibit implicit racial biases comparable to

those of other adults (Starck et al., 2020), and both correlational and experimental studies suggest that teachers' IRB may shape their disciplinary practices (Gilliam et al., 2016; Okonofua & Eberhardt, 2015), instructional practices (Jacoby-Senghor et al., 2016; Kumar et al., 2015), and student outcomes (Denessen et al., 2022) in ways that systematically disadvantage students of color. Relatedly, we expected that teachers' IRB would be associated with lower intentions to engage and lower confidence about engaging in race talk with students.

### 1.1.2 Concern about appearing racist

Regardless of their implicit racial attitudes, teachers may also experience concern about appearing racist (CAR). Given the prevalence of colorblind ideology in U.S. society (Pollock, 2004), teachers may feel awkward about openly discussing race and racism in the classroom, and they may worry that their intentions will be misunderstood, or that they will be perceived as racially prejudiced by students or colleagues (Sue, 2015). Especially in light of highly publicized teacher 'blunders' in attempts to address race with students (Kay, 2018), teacher engagement in race talk may thus be inhibited by concerns about appearing racist. Importantly, concern about being perceived as racist is distinct from racial bias: people may experience discomfort around race issues regardless of their implicit bias scores, and even when they are internally motivated to be non-prejudiced (Godsil & Richardson, 2017). Moreover, gaining awareness of implicit racial biases—though regarded as an important step toward behaving more equitably—may heighten concerns about appearing prejudiced to others (Perry et al., 2015). Therefore, we expected that teachers' reports of CAR would be associated with lower intentions to engage in race talk with students, and lower confidence about engaging in race talk with students, beyond what would be predicted by IRB.

## 1.2 Teacher and context factors also shape propensities for race talk

Although the main focus of the present research concerns how IRB and CAR predict teachers' intentions and confidence about engaging in race talk, prior research suggests that a host of other individual and contextual factors can also shape teachers' propensities to talk about race-related issues with their students. For instance, years of teaching experience may inform teacher preparedness for classroom discussions about race, with more experienced teachers typically reporting greater readiness to engage students in race talk than less experienced or preservice teachers (Alvarez, 2018). Teacher preparedness to talk about race may also depend in part on their own racial background, with Black and Latina teachers typically reporting greater preparedness to engage students in race talk than their White counterparts (Milner, 2017). Teachers' prior diversity training (or lack thereof) may also play a role. Studies indicate the potential of multicultural coursework in teacher education programs to improve attitudes and intentions about teaching in diverse classrooms and engaging in race-related discussions with students (Alvarez, 2018; Weisman & Garza, 2002). Still, other work suggests that few teachers emerge from training programs with a sense of confidence about engaging with students from diverse racial

and ethnic backgrounds in practice (see National Comprehensive Center for Teacher Quality, 2008). Indeed, whereas most teachers tend to endorse the belief that race is an important topic to discuss with students, smaller proportions of teachers actually feel prepared to engage students in classroom discussions about race (Milner, 2017).

Additionally, aspects of the school or classroom context may also shape teachers' preparedness to engage students in conversations about race. Quantitative and qualitative studies suggest that teachers' perceptions of support from school administrators have considerable effects on their willingness to engage students in discussions of race-related topics (see, e.g., Alvarez, 2018; Alvarez & Milner, 2018; Philip et al., 2017). Classroom grade level may also shape teachers' readiness to talk about race with students: although education scholars and researchers generally agree that age-appropriate race talk can and should begin as early as the preschool and elementary years (e.g., Boutte et al., 2011; Doucet & Adair, 2013), public views about the grade levels at which race talk becomes age-appropriate remain hotly contested (see, e.g., Aldrich, 2022). Contextual features such as urbanicity and student body composition can also make a difference. Whereas some work suggests that the prospect of teaching in urban schools with high percentages of students of color may lead pre-service teachers to question their readiness to engage in culturally responsive teaching practices (Siwatu, 2011), other studies indicate that teaching higher proportions of students of color positively predicts teachers' reports of preparedness for race talk with students (Alvarez, 2018). Thus, alongside teacher characteristics, several contextual factors must be considered to clarify how IRB and CAR uniquely contribute to predicting teacher intentions and confidence about engaging students in race talk.

### 1.3 The current research

The central goal of the present research was to investigate whether and how teachers' implicit racial bias and concern about appearing racist predicted their intentions and confidence about engaging in race talk with their students. To do so, we drew on two large samples of K-12 teachers, from across the U.S. (Study 1) and from an urban public school district (Study 2). We also took into account a range of teacher characteristics and contextual factors that might further contribute to teachers' propensities to talk about race in their classrooms, to isolate the unique roles that IRB and CAR may play in predicting teachers' intentions to engage students in race talk, and their confidence about engaging students in race talk. Overall, we expected that IRB and CAR would be associated with lower intentions to engage in race talk with students, and lower confidence about engaging in race talk with students.

## 2 Method (Study 1)

### 2.1 Participants and procedure

Study 1 constituted a secondary analysis of data gathered through a nationwide online survey of K-12 teachers, as part of a collaboration between Teaching Tolerance (now named Learning for Justice, [learningforjustice.org](http://learningforjustice.org); a project of the Southern Poverty

Law Center) and Perception Institute ([perception.org](http://perception.org)), two non-profit organizations dedicated to advancing civil rights, inclusion, and social justice. Individuals who accessed materials from Teaching Tolerance during the 2015–2016 academic year, identified primarily as “classroom teachers,” working in “elementary, middle, or high school” settings were eligible to participate. From this selective sample, a random set of eligible individuals was invited via email to complete an online survey. After completing an online consent form and responding to self-report measures, teachers were directed to an external site to complete the implicit bias measure. All participants received free classroom posters and were entered into a gift card raffle as compensation for participation.

Altogether, 1,304 K-12 teachers completed at least some of the survey, and 1,187 teachers (91%) completed all survey questions. Of responding teachers, 69.9% identified as White, 6.5% as Black, 4.6% as Latinx, 1.6% as Asian, and 5.3% as multiracial; 12.0% did not report their racial/ethnic background. Responding teachers were 73.5% female, 16.1% male (10.4% did not report) and ranged in age from 19 to 85 years ( $M=45.40$ ,  $SD=11.51$ ). The largest proportion of responding teachers (42.6%) reported coming from middle-class backgrounds, with 28.9% from lower-middle or lower-class backgrounds, and 18.1% from upper-middle or upper-class backgrounds (10.4% did not report).

Teaching experience ranged from 0 to 50 years ( $M=15.92$ ,  $SD=9.67$ ). Respondents were spread across the U.S., with 23.3% located in the Midwest, 24.8% in the West, 23.3% in the South, and 19.1% in the Northeast (9.5% did not report). Many (38.7%) taught in suburban communities, 35.3% in urban communities, and 15.3% in rural communities (1.8% reported “other,” 9.0% did not report). Most (70.3%) taught in traditional public schools, 7.6% in charters/magnets, 8.4% in private/parochial schools, and 4.8% in “other” settings (9.0% did not report). Approximately half (48.7%) indicated that they worked in Title I schools (i.e., receiving federal funds due to high percentages of students from low-income families); 33.1% indicated they did not work in a Title I school, and 9.2% were unsure. Percentages of students of color (i.e., Black, Latinx, Asian, or mixed heritage, according to teachers’ reports) in responding teachers’ classrooms varied widely, from 0 to 100% ( $M=55.08$ ,  $SD=33.29$ ).

## 2.2 Independent and dependent measures

### 2.2.1 Implicit racial bias

Teachers’ anti-Black/pro-White IRB was assessed using the Implicit Association Test (IAT; Greenwald et al., 2003), as hosted by Project Implicit (<https://implicit.harvard.edu/implicit/>), with “Black” and “White” as the category labels and “Good” and “Bad” as the valence labels. The Race IAT measures bias by taking into account how quickly and accurately participants sort stimuli when instructed to pair images of Black faces and positive words, images of White faces and negative words, and vice versa. The task consists of two blocks of practice trials and four blocks of critical trials, with 30 trials per block. Teachers were asked to sort stimuli which appeared in the center of the screen and were either pictures of Black or White adult faces or

positive or negative words using the ‘E’ and ‘I’ keys on their keyboard as quickly as possible. For two critical blocks, one race (Black or White) and one valence (positive or negative) were paired (i.e., represented by the same response key), and for the other two critical blocks, the pairings switched. *D*-scores were calculated according to Greenwald and colleagues (2003), with a possible range of scores from  $-2.0$  to  $+2.0$ , with positive scores representing anti-Black/pro-White bias and negative scores representing pro-Black/anti-White bias.

### 2.2.2 Concern about appearing racist

Teachers’ CAR was assessed using three items with a common stem: “When you think about teaching racially or ethnically diverse classrooms of students, to what extent are you concerned that...?” Items were “You might be perceived as prejudiced by students,” “Your intentions will be misunderstood,” and “Students might think you are racist if you try to challenge their views.” Participating teachers responded on a 7-point scale from 1 (not at all concerned) to 7 (very concerned). These items were generated through focus groups with middle school teachers (grades 6–8) and high school teachers (grades 9–12), who indicated that these were concerns teachers were likely to experience when teaching in racially and ethnically diverse classrooms. The items showed good internal reliability ( $\alpha=0.84$ ) and were averaged to create a composite scale, with higher scores indicating greater CAR.

### 2.2.3 Intention to engage in race talk

Teachers were asked two items regarding “how often” they address, and “how willing” they are to address, “diversity or race-related issues with [their] students in the classroom.” Item responses were scored on 7-point scales ranging from 1 (not at all) to 7 (very often/very willing). Reliability for this two-item measure was calculated using the Spearman-Brown formula ( $\rho=0.68$ , see Eisinga et al., 2013); responses to the two items were averaged prior to data analysis to create a composite measure of intention to engage in race talk.

### 2.2.4 Confidence engaging in race talk

Participating teachers responded to four items assessing their confidence in managing classroom discussions about race: “I am confident that I can successfully manage discussions of racial and ethnic issues with students in my classroom,” “I feel confident in my ability to address racial and ethnic issues as they arise in the classroom,” “I feel prepared to engage students in discussions of racial and ethnic issues,” and “I encourage students in my classroom to raise questions about racial and ethnic issues.” These items were created in partnership with Perception Institute, to capture ideal outcomes that might result from using a resource guide on “discussing race, racism, and other difficult topics with students” developed by Teaching Tolerance (2016). Teachers responded to these items on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The items showed high internal reliability ( $\alpha=0.89$ ) and were averaged to create a composite score.

## 2.3 Statistical controls

In addition to demographic information, participating teachers provided responses to several self-report measures included as statistical controls.

### 2.3.1 Social desirability

Teachers responded to three items from the Social Desirability Scale (e.g., “I’m always willing to admit it when I make a mistake”; Crowne & Marlowe 1960), to account for the possibility that self-presentational concerns could bias their survey responses. Teachers responded on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree). Responses were averaged to create a composite score ( $\alpha=0.70$ ).

### 2.3.2 Motives to control prejudice

Teachers’ internal and external motives to control prejudice (Plant & Devine, 1998) were assessed to account for their desire to behave in unbiased ways. Two items were used to assess internal motives (e.g., “I attempt to act in nonprejudiced ways because it is personally important to me”) and two items were used to assess external motives (e.g., “I attempt to appear nonprejudiced in order to avoid disapproval from others”). Teachers responded on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree). Responses to each pair of items were averaged to create composite scores for internal and external motives to control prejudice, and reliability for these two-item measures were calculated using the Spearman-Brown formula ( $\rho=0.68$  and  $0.81$ , respectively; see Eisinga et al., 2013).

### 2.3.3 Perceived support from schools

Teachers were also asked about the extent to which they felt supported by their schools, using three items adapted from the NCES (2012) Schools and Staffing Survey (e.g., “The school administration’s behavior toward the teaching staff is supportive and encouraging”). Responses to the items ranged from 1 (Strongly disagree) to 7 (Strongly agree) and were averaged to create a composite score ( $\alpha=0.90$ ).

### 2.3.4 Prior diversity training

An item adapted from the National Comprehensive Center for Teacher Quality (2008) asked teachers the extent to which they agreed with a statement that they had had prior training focused on working specifically with racially and ethnically diverse students. Responses ranged from 1 (strongly disagree) to 7 (strongly agree).

## 2.4 Data analytic plan

Two linear regression models examined teachers’ IRB and CAR (entered simultaneously) as predictors of intention to engage and confidence about engaging in race talk, beyond what could be predicted by statistical controls. Missing data were handled

using maximum likelihood estimation. Urbanicity (a three-category variable) was entered using two dummy variables representing urban and rural locations, with suburban/other as referent. Given that many teachers reported teaching across multiple grades, and that teachers of elementary grade levels may be least likely to engage in race talk and teachers of high school grade levels most likely, dummy variables were included representing teachers of elementary grades (teaching only within grades K-5; 14.0%) and high school grades (teaching only within grades 9-12; 41.4%), with middle grades (teaching grades 6-8, 35.6%; or unreported, 9%) as the referent group. The percentage of students of color in teachers' classrooms was also included in each model, as were teacher reports of school type (1 = traditional public school, 0 = other), whether the school received Title I funding (coded as 1 = yes, 0 = no/not sure), teacher age (in years), gender (coded as 1 = female, 0 = male), years of teaching experience, race/ethnicity (coded as 1 = White, 0 = non-White), and socio-economic background (ranging from 1 = lower class to 5 = upper class). Teacher scores on social desirability, internal and external motives to control prejudice, perceived support from school, and prior diversity training were also entered as controls. Pseudo- $R^2$  estimates of variance explained by covariates and predictors of interest were calculated according to Raudenbush & Bryk (2002).

## 2.5 Results and discussion

Descriptive statistics and correlations among key measures are presented in Table 1. On average, teachers demonstrated a small pro-White/anti-Black implicit bias ( $M=0.26$ ,  $SD=0.42$ ) and reported generally low levels of concern about appearing racist ( $M=2.80$ ,  $SD=1.42$ ). By contrast, teachers reported moderate-to-high intentions to engage in race talk ( $M=5.38$ ,  $SD=1.16$ ) and confidence about engaging in race talk ( $M=6.01$ ,  $SD=0.93$ ).

Results for the model predicting intention to engage in race talk are summarized in Table 2. Calculation of pseudo- $R^2$  in accordance with Raudenbush & Bryk (2002) showed that our set of covariates explained 11.15% of the variance in intention to engage in race talk; adding IRB and CAR to the model together explained an additional 12.66%. Teacher IRB predicted significantly lower intention to engage in race talk ( $B = -0.22$ ,  $SE=0.08$ ,  $t = -2.58$ ,  $p = .01$ ; pseudo- $R^2=0.07$ ), and CAR also predicted significantly lower intention to engage in race talk ( $B = -0.22$ ,  $SE=0.03$ ,  $t = -8.29$ ,  $p < .001$ ; pseudo- $R^2=0.07$ ).

**Table 1** Correlations Among Key Self-Report and Implicit Measures (Study 1)

	<i>M</i>	<i>SD</i>	1	2	3	4
1. IRB	0.26	0.42	1			
2. CAR	2.80	1.42	.09**	1		
3. RT Intention	5.38	1.16	-.13***	-.30***	1	
4. RT Confidence	6.01	0.93	-.09**	-.48***	.50***	1

Note: IRB=Implicit Racial Bias; CAR=Concern about Appearing Racist; RT=Race Talk

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$



**Table 2** Predicting Intentions to Engage in Race Talk (Study 1)

	Model 1				Model 2			
	Estimate	SE	95% CI		Estimate	SE	95% CI	
			LL	UL			LL	UL
(Constant)	4.23***	0.39	3.46	5.01	5.01***	0.43	4.17	5.84
<i>School and Context Factors</i>								
Urban	0.13	0.08	-0.03	0.30	0.14	0.09	-0.03	0.31
Rural	-0.07	0.10	-0.26	0.12	-0.10	0.10	-0.30	0.09
Public School	-0.11	0.08	-0.27	0.05	-0.01	0.09	-0.18	0.15
Title I	0.11	0.08	-0.04	0.27	0.06	0.08	-0.10	0.22
Elementary School	-0.50***	0.10	-0.70	-0.30	-0.52***	0.11	-0.73	-0.31
High School	0.20**	0.07	0.06	0.35	0.20**	0.07	0.05	0.35
% Students of Color	-0.00	0.00	-0.00	0.00	0.00	0.00	-0.00	0.00
<i>Teacher Characteristics</i>								
Age	0.00	0.00	-0.01	0.01	-0.00	0.00	-0.01	0.01
Gender (Female=1)	-0.06	0.09	-0.23	0.11	-0.14	0.09	-0.32	0.04
Years Teaching	0.00	0.01	-0.01	0.01	0.00	0.01	-0.01	0.01
Race (White=1)	-0.08	0.09	-0.25	0.09	0.07	0.09	-0.11	0.25
SES	-0.06	0.04	-0.14	0.01	-0.04	0.04	-0.12	0.04
Social Desirability	0.00	0.04	-0.08	0.08	0.02	0.04	-0.06	0.11
Internal Motives	0.22***	0.03	0.16	0.29	0.19***	0.03	0.12	0.25
External Motives	-0.13***	0.02	-0.17	-0.09	-0.07**	0.02	-0.12	-0.03
Perceived School Support	0.02	0.02	-0.03	0.07	0.00	0.03	-0.04	0.06
Prior Diversity Training	0.07***	0.02	0.04	0.10	0.04*	0.02	0.00	0.07
<i>Key Predictor Variables</i>								
IRB	-	-	-	-	-0.22**	0.08	-0.38	-0.05
CAR	-	-	-	-	-0.22***	0.03	-0.27	-0.17
Pseudo-R <sup>2</sup>	0.112				0.238			

Note: % Students of Color=teacher estimate of percentage of students of color in their class(es); SES=teacher self-reported socio-economic background; Internal Motives=internal motives to control prejudice; External Motives=external motives to control prejudice; IRB=Implicit Racial Bias; CAR=Concern about Appearing Racist

\* $p < .05$  \*\* $p \leq .01$  \*\*\* $p < .001$

Results for the model predicting confidence about engaging in race talk are summarized in Table 3. Covariates explained 13.64% of the variance in confidence engaging in race talk, whereas IRB and CAR together explained an additional 16.35%. Teacher IRB was not significantly associated with teacher confidence about engaging in race talk ( $B = -0.07$ ,  $SE = 0.07$ ,  $t = -1.02$ ,  $p = .309$ ; pseudo- $R^2 = 0.01$ ). At the same time, CAR predicted significantly lower confidence about engaging in race talk ( $B = -0.28$ ,  $SE = 0.02$ ,  $t = -13.68$ ,  $p < .001$ ; pseudo- $R^2 = 0.15$ ).

**Table 3** Predicting Confidence Engaging in Race Talk (Study 1)

	Model 1				Model 2			
	Estimate	SE	95% CI		Estimate	SE	95% CI	
			LL	UL			LL	UL
(Constant)	4.57***	0.31	3.96	5.18	5.60***	0.33	4.96	6.25
<i>School and Context Factors</i>								
Urban	0.11	0.07	-0.01	0.24	0.09	0.07	-0.04	0.22
Rural	-0.04	0.08	-0.19	0.11	0.01	0.08	-0.15	0.16
Public School	0.03	0.06	-0.10	0.16	0.12	0.07	-0.01	0.25
Title I	0.04	0.06	-0.09	0.16	-0.03	0.06	-0.15	0.09
Elementary School	-0.16*	0.08	-0.32	-0.01	-0.14	0.08	-0.30	0.02
High School	0.06	0.06	-0.05	0.17	0.04	0.06	-0.07	0.15
% Students of Color	-0.00	0.00	-0.00	0.00	-0.00	0.00	-0.00	0.00
<i>Teacher Characteristics</i>								
Age	0.01**	0.00	0.00	0.02	0.01*	0.00	0.00	0.01
Gender (Female=1)	-0.15*	0.07	-0.28	-0.01	-0.19**	0.07	-0.33	-0.05
Years Teaching	0.01	0.00	-0.00	0.01	0.00	0.00	-0.00	0.01
Race (White=1)	-0.20**	0.07	-0.33	-0.07	-0.10	0.07	-0.25	0.04
SES	-0.04	0.03	-0.10	0.02	-0.04	0.03	-0.10	0.02
Social Desirability	0.14***	0.03	0.08	0.21	0.14***	0.03	0.07	0.21
Internal Motives	0.04	0.03	-0.01	0.09	0.02	0.03	-0.04	0.07
External Motives	-0.09***	0.02	-0.12	-0.05	-0.01	0.02	-0.05	0.02
Perceived School Support	0.06**	0.02	0.02	0.10	0.02	0.02	-0.01	0.06
Prior Diversity Training	0.04**	0.01	0.01	0.06	0.02	0.01	-0.01	0.04
<i>Key Predictor Variables</i>								
IRB	-	-	-	-	-0.07	0.07	-0.19	0.06
CAR	-	-	-	-	-0.28***	0.02	-0.32	-0.24
Pseudo-R <sup>2</sup>	0.136				0.300			

Note: % Students of Color=teacher estimate of percentage of students of color in their class(es); SES=teacher self-reported socio-economic background; Internal Motives=internal motives to control prejudice; External Motives=external motives to control prejudice; IRB=Implicit Racial Bias; CAR=Concern about Appearing Racist

\* $p < .05$  \*\* $p \leq .01$  \*\*\* $p < .001$

Thus, Study 1 showed that teachers' IRB and CAR each uniquely predicted lower intention to engage in race talk with students, yet only CAR predicted teachers' lower confidence about managing such discussions. The large, national sample used in Study 1 constituted a racially, ethnically, and geographically diverse group of K-12 teachers. Still, the sample was drawn from a specific population of educators who had accessed materials related to diversity and equity in education, and who subsequently elected to participate in the survey. We therefore conducted a second study

with a sample of teachers from a single school district, in the hopes of replicating our findings while accounting for the clustering of teachers within schools and keeping regional and district-level factors constant.

### 3 Method (Study 2)

#### 3.1 Participants and procedure

In Study 2, K-12 teachers were recruited from a large, urban school district in the northeastern U.S. with over 50,000 students (42.5% Latinx, 33% Black, 14% White, 9% Asian/Pacific Islander, and 1.5% multiracial or from other backgrounds). Most students in the district (72%) are considered economically disadvantaged, and all schools receive Title I funds. The 4,400 district teachers were approximately 58.8% White, 22.1% Black, 10.7% Hispanic/Latinx, 6.3% Asian, and 2.1% from other racial/ethnic backgrounds. This information is drawn from publicly available data compiled by the district in the 2018–2019 school year during which the study was conducted.

Of the district's 125 schools, 100 principals allowed us to recruit teachers in their schools to participate. Classroom teachers were invited via email to participate in an online survey and received a \$20 gift card as compensation for participation. As in Study 1, following the self-report items, they were provided a link to an external page to complete the Race IAT.

A total of 1,013 teachers completed the survey (23% of all K-12 teachers in the district). Of these, 50.3% identified as White, 9.6% as Black, 7.7% as Latinx, 4.8% as Asian, 2.9% as multiracial, and 1.4% as Other (23.3% did not respond). Responding teachers were 63.0% female, 17.0% male, 0.5% nonbinary (19.5% did not respond) and ranged in age from 22 to 69 years ( $M=39.08$ ,  $SD=10.11$ ). Over a third (36.7%) reported coming from middle-class backgrounds, with 21.7% coming from lower-middle or lower-class backgrounds, and 20.5% coming from upper-middle or upper-class backgrounds (21.1% did not report). Teaching experience ranged from 0 to 40 years ( $M=12.21$ ,  $SD=8.27$ ). The percentage of students of color in responding teachers' classrooms ranged from 0 to 100% ( $M=85.08$ ,  $SD=23.29$ ).

#### 3.2 Independent and dependent measures

Measures of teachers' IRB, CAR (three items,  $\alpha=0.85$ ), intention to engage in race talk (two items,  $\rho=0.64$ ), and confidence engaging in race talk (four items,  $\alpha=0.89$ ) were identical to those used in Study 1.

#### 3.3 Statistical controls

As in the previous study, teachers provided responses to several self-report measures included as statistical controls. Teacher age, gender, years of teaching experience, racial/ethnic background, socio-economic background, and reports of percentage of students of color in their classrooms were assessed and coded as in Study 1, as were

teachers' scores on social desirability ( $\alpha=0.78$ ), internal and external motives to control prejudice ( $\rho=0.64$  and  $0.81$ , respectively), perceived support from their school ( $\alpha=0.92$ ), and prior diversity training (single item).

**Table 4** Correlations Among Key Self-Report and Implicit Measures (Study 2)

	<i>M</i>	<i>SD</i>	1	2	3	4
1. IRB	0.16	0.42	1			
2. CAR	2.08	1.20	.10**	1		
3. RT Intention	5.11	1.25	-.16***	-.22***	1	
4. RT Confidence	5.87	0.96	-.09*	-.42***	.48***	1

Note: IRB=Implicit Racial Bias; CAR=Concern about Appearing Racist; RT=Race Talk

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

**Table 5** Predicting Intentions to Engage in Race Talk (Study 2)

	Model 1				Model 2			
	Estimate	SE	95% CI		Estimate	SE	95% CI	
			<i>LL</i>	<i>UL</i>			<i>LL</i>	<i>UL</i>
(Constant)	3.58***	0.58	2.45	4.72	4.44***	0.64	3.17	5.71
<i>School and Context Factors</i>								
Elementary School	-0.29	0.17	-0.63	0.45	-0.32	0.18	-0.68	0.04
High School	0.13	0.18	-0.23	0.49	0.16	0.20	-0.23	0.55
% Students of Color	0.00	0.00	-0.00	0.00	0.00	0.00	-0.01	0.00
<i>Teacher Characteristics</i>								
Age	0.00	0.01	-0.01	0.02	0.00	0.01	-0.01	0.02
Gender (Female=1)	0.40***	0.11	0.18	0.62	0.44***	0.12	0.21	0.67
Years Teaching	-0.01	0.01	-0.02	0.01	-0.01	0.01	-0.03	0.01
Race (White=1)	-0.03	0.10	-0.23	0.17	0.11	0.11	-0.10	0.33
SES	0.03	0.05	-0.08	0.13	0.01	0.06	-0.10	0.12
Social Desirability	0.01	0.05	-0.09	0.12	-0.01	0.06	-0.12	0.10
Internal Motives	0.20***	0.04	0.12	0.28	0.21***	0.04	0.12	0.30
External Motives	-0.09**	0.03	-0.14	-0.03	-0.06	0.03	-0.13	0.00
Perceived School Support	0.01	0.03	-0.06	0.07	-0.02	0.04	-0.09	0.05
Prior Diversity Training	0.03	0.02	-0.02	0.08	0.03	0.03	-0.02	0.08
<i>Key Predictor Variables</i>								
IRB	-	-	-	-	-0.40***	0.12	-0.64	-0.17
CAR	-	-	-	-	-0.17***	0.05	-0.25	-0.08
Pseudo- <i>R</i> <sup>2</sup>	0.042				0.076			

Note: % Students of Color=teacher estimate of percentage of students of color in their class(es); SES=teacher self-reported socio-economic background; Internal Motives=internal motives to control prejudice; External Motives=external motives to control prejudice; IRB=Implicit Racial Bias; CAR=Concern about Appearing Racist

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

### 3.4 Data analytic plan

We accounted for the clustering of teachers within schools using linear mixed modeling. Paralleling the approach used in Study 1, separate models were estimated for each race talk outcome, with missing data handled using maximum likelihood estimation. Dummy variables were created to represent teachers of elementary school grade levels ( $n=531$ ) and high school grade levels ( $n=233$ ), with middle school grade levels as the referent ( $n=249$ ). All controls (elementary and high school level, percentage of students of color in teacher's classroom, teacher age, gender (coded as 1=female, 0=male), race/ethnicity (coded as 1=White, 0=non-White), SES, years

**Table 6** Predicting Confidence Engaging in Race Talk (Study 2)

	Model 1				Model 2			
	Estimate	SE	95% CI		Estimate	SE	95% CI	
			LL	UL			LL	UL
(Constant)	3.43***	0.43	2.59	4.27	4.66***	0.43	3.81	5.51
<i>School and Context Factors</i>								
Elementary School	0.19	0.13	-0.06	0.44	0.20	0.12	-0.05	0.44
High School	0.26	0.13	-0.00	0.53	0.31*	0.13	0.05	0.57
% Students of Color	0.00	0.00	-0.00	0.01	-0.00	0.00	-0.01	0.00
<i>Teacher Characteristics</i>								
Age	0.01	0.01	-0.01	0.02	0.00	0.01	-0.01	0.01
Gender (Female=1)	0.08	0.08	-0.09	0.24	0.03	0.08	-0.13	0.19
Years Teaching	0.01	0.01	-0.01	0.02	0.00	0.01	-0.01	0.02
Race (White=1)	-0.28***	0.08	-0.43	-0.13	-0.15	0.08	-0.30	0.00
SES	0.01	0.04	-0.07	0.08	0.02	0.04	-0.06	0.10
Social Desirability	0.21***	0.04	0.14	0.29	0.22***	0.04	0.15	0.30
Internal Motives	0.05	0.03	-0.01	0.11	0.05	0.03	-0.01	0.11
External Motives	-0.08***	0.02	-0.13	-0.04	-0.04	0.02	-0.09	0.00
Perceived School Support	0.08**	0.02	0.03	0.12	0.01	0.02	-0.04	0.05
Prior Diversity Training	0.06**	0.02	0.02	0.10	0.06**	0.02	0.02	0.09
<i>Key Predictor Variables</i>								
IRB	-	-	-	-	-0.09	0.08	-0.25	0.07
CAR	-	-	-	-	-0.31***	0.03	-0.37	-0.25
Pseudo- $R^2$	0.146				0.313			

Note: % Students of Color=teacher estimate of percentage of students of color in their class(es); SES=teacher self-reported socio-economic background; Internal Motives=internal motives to control prejudice; External Motives=external motives to control prejudice; IRB=Implicit Racial Bias; CAR=Concern about Appearing Racist

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ .

teaching, social desirability, internal and external motives to control prejudice, perceived support from school, and prior diversity training) were entered as fixed predictors. Teacher IRB and CAR were entered as fixed predictors of key interest.

### 3.5 Results and discussion

Descriptive statistics and correlations among key self-report and implicit measures are presented in Table 4. On average, and similar to Study 1, teachers demonstrated a small pro-White/anti-Black implicit bias ( $M=0.16$ ,  $SD=0.42$ ), and reported generally low levels of concern about appearing racist ( $M=2.08$ ,  $SD=1.20$ ). As in Study 1, teachers also reported moderate-to-high intentions to engage in race talk ( $M=5.11$ ,  $SD=1.25$ ) and confidence about engaging in race talk ( $M=5.87$ ,  $SD=0.96$ ).

Results for the model predicting intention to engage in race talk are summarized in Table 5. Calculation of pseudo- $R^2$  in accordance with Raudenbush & Bryk (2002) indicated that our set of covariates explained 4.18% of the within-school variance in intention to engage in race talk; adding IRB and CAR to the model together explained an additional 3.38%. Replicating results from Study 1, teacher IRB predicted significantly lower intentions to engage in race talk ( $B = -0.40$ ,  $SE=0.12$ ,  $t = -3.37$ ,  $p < .001$ ; pseudo- $R^2=0.02$ ), and CAR also predicted significantly lower intentions to engage in race talk ( $B = -0.17$ ,  $SE=0.05$ ,  $t = -3.67$ ,  $p < .001$ ; pseudo- $R^2=0.02$ ).

Results for the model predicting confidence about engaging in race talk are summarized in Table 6. Covariates explained 14.57% of the within-school variance in confidence engaging in race talk, whereas IRB and CAR together explained an additional 16.76%. Teacher IRB was unrelated to teacher confidence about race talk with students ( $B = -0.09$ ,  $SE=0.08$ ,  $t = -1.15$ ,  $p = .249$ ; pseudo- $R^2=0.06$ ), whereas CAR predicted significantly lower confidence about engaging in race talk ( $B = -0.31$ ,  $SE=0.03$ ,  $t = -9.93$ ,  $p < .001$ ; pseudo- $R^2=0.11$ ). Thus, consistent with findings from Study 1, IRB corresponded with teachers' reticence to engage in race talk with students, whereas CAR corresponded with both reticence and lowered confidence about engaging in race talk.

## 4 General discussion

This research contributes to our understanding of psychological barriers that shape K-12 teachers' engagement in crucial conversations about race and racism with their students. In line with our hypotheses, findings from these two studies suggest that both implicit racial biases and concerns about appearing racist play meaningful and unique roles in shaping teachers' propensities for race talk. Across both studies, teachers with higher implicit pro-White/anti-Black biases reported lower intentions to engage in race-related discussions with students, even when controlling statistically for teachers' self-reported internal and external motives to be unbiased. These findings indicate that learned racial biases, even among well-intentioned teachers, may inadvertently and unconsciously contribute to teachers' resistance to engaging their students in race talk. These findings are consistent with previous scholarship indicating links between implicit racial bias and teachers' classroom practice (e.g.,

Jacoby-Senghor et al., 2016), and notably the association between implicit racial bias and teachers' lower sense of responsibility to engage in culturally responsive teaching practices (Kumar et al., 2015).

Interestingly, however, across both studies, implicit racial bias did not significantly predict teachers' reported confidence about engaging in race talk with students. Thus, it appears that implicit racial attitudes do not meaningfully contribute to teachers' perceptions of their ability to facilitate race-related conversations, as much as they shape their intentions of doing so. This finding is similar to those of other studies showing a lack of significant association between teachers' implicit bias scores and their sense of efficacy in teaching students from marginalized groups (Denessen et al., 2022). Though confidence engaging in race talk and the perception of one's ability to adapt teaching practices to meet the needs of students of color are not equivalent, each relates to teachers' sense of their own competence engaging students around race and racialized differences. Nonetheless, the lack of association between teachers' implicit racial bias scores and their confidence about engaging in race talk does not preclude the possibility that implicit racial bias may impact the content and/or quality of how they engage in race-related discussions with students. Given other research demonstrating links between implicit racial bias and nonverbal behavior in interracial interactions (Dovidio et al., 2002), it is plausible that implicit racial biases could still shape teachers' subtle and largely unconscious behaviors during race talk with students—for instance, how much eye contact they make and with whom, as well as other indicators of avoidance or discomfort. Examining psychological correlates of teachers' behaviors during classroom race talk as well as the content of those discussions would be a fruitful direction for future research.

Beyond a focus on implicit racial bias, the present research extended prior work by examining simultaneously the unique contribution of teachers' concerns about appearing racist to their inclinations to engage students in race talk. Although teachers' average reported levels of concern about appearing racist were fairly low, these concerns predicted significantly lower intentions to engage and lower confidence about engaging students in race talk across both studies. Thus, concerns about being seen as racist may present a considerable barrier to teachers' propensities to address race-related topics with students, aligning with qualitative evidence highlighting such concerns (Alvarez & Milner, 2018; Buchanan, 2015; Palmer & Louis, 2017). The finding that concern about appearing racist predicted significantly lower teacher confidence about engaging in race talk—when implicit racial bias did not—suggests that teachers' relational and self-presentational concerns differentially shape teachers' feelings about facilitating race-related discussions with students beyond what can be captured by implicit bias measures alone. Such concerns may therefore be especially important topics to address in training and professional development activities to promote teachers' effective facilitation of race talk.

#### 4.1 Implications for teacher education

Our findings intimate that diversity-related training and professional development opportunities for teachers should not be limited to strategies for reducing implicit racial bias (e.g., Whitford & Emerson 2019), but should be extended to support

teachers in acknowledging and managing feelings of apprehension that may arise when they seek to engage students in race talk (see Teaching Tolerance, 2019). Although teachers' implicit racial biases and internal motives to be non-prejudiced are often identified as important mechanisms of educational inequity and targets for professional development programs (see Dee & Gershenson 2017; Warikoo et al., 2016), these factors did not uniquely predict teachers' confidence about navigating race-related discussions with students. Given that awareness of one's potential to be racially biased can induce racial anxiety (Perry et al., 2015), raising teachers' awareness of the potential to be racially biased coupled with addressing concomitant concerns about appearing racist may constitute a more optimal approach. We therefore propose that teacher concerns about appearing racist be considered as a new focus for intervention that may ultimately enhance teachers' capacity for and facility in navigating classroom discussions about race with students.

In line with this view, future professional development programs for teachers might grant special attention to strategies designed to alleviate teachers' concerns about seeming racist or prejudiced. For instance, approaches from intergroup research that involve the use of behavioral scripts (e.g., structured guidelines for conversations; Avery et al., 2009) or that prompt individuals to form contingency plans (e.g., Stern & West 2014) may be tested as strategies to reduce teachers' apprehension about engaging in race talk with students from diverse backgrounds. Alternatively, mindfulness training may be effective in helping teachers to manage their concerns about appearing racist in the eyes of their students, to mitigate the impact of such concerns on instructional practice. Prior studies have demonstrated the potential of mindfulness practices to reduce stress and anxiety in teachers (Roeser et al., 2013), to improve the emotional, instructional, and organizational support teachers provide in the classroom (Hirshberg et al., 2020), and to lower intergroup bias and promote anti-bias behaviors (Chang et al., 2022; Oyler et al., 2022). It is likewise possible that providing opportunities for teachers to engage in race talk with other school staff, or with other members of their communities, might provide them with greater experience and insight, which could better prepare them for facilitating similar discussions with students in their classrooms (Sue, 2015).

## 4.2 Limitations and future directions

Though the present research usefully extends prior work regarding teachers' propensities to engage in race talk, these studies also have some important limitations. The cross-sectional nature of both studies precludes our ability to draw causal conclusions regarding relations between teachers' IRB and CAR and their intentions to and confidence about engaging in race talk. Also, we relied on self-report measures to assess teachers' concern about appearing racist, as well as their propensities for race talk with their students; regrettably, our item asking teachers to estimate race talk frequency did not include quantified response labels (see Woltz et al., 2012), and our composite measures of race talk intentions and internal motives to control prejudice showed fairly low reliability estimates across the two studies. Given limitations associated with these self-report measures in the present research, we sought to control for factors that might have biased teachers' reported intentions and confidence about



engaging in race talk (e.g., social desirability, motives to control prejudice). Nonetheless, future studies would benefit from including direct observations of teachers in their classrooms and/or student reports of teachers' classroom practices (see Denessen et al., 2022), to gain more insight into how implicit racial biases and concerns about appearing racist may shape teachers' classroom instruction. Such observational methods might also usefully capture aspects of race talk that we were not able to assess in the current study, including specific content and students' perceptions of and behavioral responses to such discussions. Another limitation is that we relied on a measure of implicit racial bias tapping attitudes on a continuum from pro-Black/anti-White to pro-White/anti-Black, without taking into account teachers' attitudes toward other racial and ethnic groups (see Warikoo et al., 2016). Nonetheless, despite these limitations, the present studies consistently demonstrate how both implicit racial biases and explicit relational concerns are linked to teachers' intentions and confidence about engaging in race talk with students.

We also wish to note that teachers' reported intentions and confidence about engaging in race talk do not necessarily equate to skillfulness in facilitating such discussions. Even teachers who are willing to engage in race talk and regularly do so may have limited knowledge of culturally responsive pedagogy or developmentally appropriate approaches to race talk and may inadvertently facilitate conversations in ways that create psychologically unsafe environments for students (Philip et al., 2017; Williams et al., 2016). Thus, as we examine potential barriers to teachers' engagement in race talk with students, we must also learn how to support teachers effectively when they are called upon to facilitate these discussions by drawing on existing guidance, particularly from scholars and educators of color (see, e.g., Kay 2018; King et al., 2018; Sue, 2015; Teaching Tolerance, 2019; Turner 2020).

### 4.3 Conclusions

Educators increasingly recognize the value of classroom discussions about race (Milner, 2017; Sue, 2015), and teachers' readiness to engage students in race talk is as important as ever given our current social and political climate. Ongoing debates about coverage of race-related topics in school curricula and growing media attention to repeated instances of racial injustice virtually ensure that youth are being exposed to public discourse on race (see, e.g., Rogers et al., 2021; Tynes et al., 2019; Waxman, 2021). These social realities heighten the urgency of enhancing teachers' capacity to support students as they attempt to process what they observe in the world around them (Flores-Koulish & Shiller, 2020; Kay, 2018; Turner, 2020). By providing students with opportunities to engage in meaningful discussions about race, teachers can prepare them for respectful exchanges of perspectives with others and full participation as engaged citizens in an increasingly multifaceted and diverse society (Arias & Parameswaran, 2021).

Our research identifies teachers' implicit racial bias and concern about appearing racist as dual psychological barriers to teachers' engagement with race-related topics in their classrooms. Addressing teachers' concern about appearing racist in concert with raising teachers' awareness of implicit racial bias may therefore serve as a new joint focus for training and professional development to enhance teachers' capacity

to engage in race talk and to move toward more equitable and inclusive instruction for all students.

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## Declarations

**Competing Interests** Both authors have served as research advisors for Perception Institute.

**Ethics and Consent** The work presented in this paper was carried out in accordance with the APA ethical standards. All participants in our study provided their informed consent online and were granted the right to withdraw from the survey for any reason, without penalty.

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**Linda R. Tropp** is a Professor in the Department of Psychological and Brain Sciences at the University of Massachusetts Amherst. Her research concerns how members of different groups experience contact with each other, and how group differences in status affect cross-group relations, toward the dual goals of promoting positive relations between groups and achieving ever-greater levels of social equality and justice.

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**Christina L. Rucinski** is the Research-to-Practice Program Manager at EmbraceRace and was previously a postdoctoral researcher in the Department of Psychological and Brain Sciences at the University of Massachusetts Amherst. She is interested in educational equity and in developing evidence-based resources and strategies to support caregivers and educators in nurturing children's racial learning.