

Teachers' Beliefs, Values, and Likelihood of Talking about Group-Based Discrimination

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Abstract

A teacher survey ($N = 290$) based on the social reasoning developmental model investigated (1) beliefs and values about using class time for discussing discrimination and reported frequency of discussing discrimination based on different social identities and (2) factors predicting teachers' frequency for discussing racial discrimination in the classroom. Most participants reported beliefs that all five identities were worth discussing in class, yet teachers most strongly believed that wealth, race, and native language affect students' education. Higher beliefs that prejudice can change, school support, and beliefs that race affects students' education predicted higher teacher reports for talking about racial discrimination.

Key words: teachers, discrimination, prejudice, theory of prejudice

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Experiencing prejudice and discrimination at school is harmful to students, and minoritized students are at greater risk for these experiences. This may occur as social exclusion by peers (Killen & Rutland, 2022; Levy et al., 2016; Losinski et al., 2019) or as teacher bias based on one's race, gender, religious identity, or native language (Assari & Caldwell, 2018; Peterson et al., 2016; Tenenbaum & Ruck, 2007). Being the victim of ethnic or racial social exclusion or discrimination at school is associated with a lack of school belonging as well as negative academic and mental health outcomes for minoritized students (İnan-Kaya & Rubies-Davies, 2022; Okonofua et al., 2016; Peterson et al., 2016). When children are observers of a school climate that perpetuates social inequalities, they may internalize harmful societal stereotypes (Bigler & Liben, 2007), or, depending on their school environments, they may challenge these stereotypes as unfair (Killen & Rutland, 2022).

Schools are spaces where children spend a large proportion of their time and therefore present opportunities for meaningful learning about bias and discrimination to reduce prejudicial attitudes in childhood (Kaufman & Killen, 2022; Losinski et al., 2019). As one of the primary relationships and authority figures in children's lives, teachers play a crucial role. Teacher styles and approaches to the topic of bias may have very different outcomes, contributing to reducing or exacerbating children's experiences of exclusion or discrimination at school and shaping their intergroup attitudes. Skinner and Meltzoff (2019) found in a systematic review of the literature on childhood prejudice reduction that explicit education about prejudice from a trusted authority, such as a teacher, was one of the three childhood experiences found to be most reliably associated with reductions in intergroup bias. Teachers' classroom practices that focus on

prejudice reduction can also have a positive impact on student engagement, but this may depend on the teacher's own beliefs and values regarding discussing aspects of multiculturalism and identity in the classroom (Abacioglu et al., 2019). In the current study, we examined U.S. teachers' beliefs, values, and practices regarding discussing race and other social identities in the classroom.

First, we introduce the theoretical perspectives of the social reasoning developmental model and theory of prejudice which frame the current study. We then review prior research on the role of teacher beliefs and values in their decisions to discuss discrimination in the classroom. We review research on the benefits of discussing race, which may be transferred to the discussion of other social identities. We next give an overview of current research about how teachers discuss race, gender, religion, socioeconomic status, and native language identities with their students. While providing an important basis of knowledge our review reveals that little prior work has systematically investigated teachers' beliefs about *multiple* forms of social identity. Thus, in this study, in addition to our focus on race, we examined teacher attitudes toward different social identities in the classroom to better understand factors that promote classroom discussions that can reduce student prejudice.

Theoretical Framing

Prior work on teacher dialogue about race and other forms of discrimination has examined teacher talk through the lens of multicultural education (Banks, 2008) or with the focus on classifying teacher talk about race into categories (Vittrup, 2016). In this study, we instead focus on understanding the social reasoning, social identities, and aspects of group context that contribute to a teacher's decision to discuss discrimination with their students

through the lenses of the *social reasoning developmental model* and *theory of prejudice* frameworks.

The social reasoning developmental model draws on both social identity theory (Abrams & Rutland, 2010; Nesdale & Lawson, 2011) and social domain theory (Smetana et al., 2014; Turiel, 2015) to explain individuals' social reasoning in intergroup contexts (Killen & Rutland, 2011). Through this lens, individuals reason by coordinating knowledge of group identity, group conventions, mental state knowledge, and domain-based reasoning (e.g., that which pertains to moral, societal, and psychological domains of knowledge) (Elenbaas et al., 2020). This model has been used to analyze the reasons, beliefs, and judgments that children, adolescents, and adults make about intergroup contexts, that is, situations involving prejudice based on group identity. In this study, we applied this theoretical framework to examine aspects of teacher identity, mental state knowledge, beliefs, and context which revealed the frequency by which teachers discuss racial prejudice with students.

One relevant aspect of mental state knowledge is an individual's theory of prejudice (ToP), or the lay theory one holds about whether prejudice is fixed or malleable (Carr et al., 2012). A more malleable, or "growth", mindset about prejudice has been found to predict a higher willingness to discuss race and engage in interracial contact among both adults (Carr et al., 2012) and children (Pauker et al., 2022). Lay theories of prejudice remain underexamined in more complex contexts (Tai & Pauker, 2021), such as among teachers as a factor associated with teacher talk about race. We propose that teachers who view prejudice as changeable may speak more about race and prejudice with their students as part of their effort to reduce students' intergroup biases.

Teachers' Dialogue About Discrimination in the Classroom

A teacher's attitudes, perceptions, and beliefs can affect student outcomes differentially depending on how they interact with students of different social groups, such as race, ethnicity, or gender (Turetsky, et al., 2021). In the case of racism, Roberts and Rizzo (2021) highlight that avoiding passivism, defined as indifference towards racial hierarchies or denial of such systems, is crucial in confronting racism in American society. Teachers are in a unique position to avoid passivism by holding discussions about discrimination with their students in the classroom. Teachers can help students see these discussions as moral issues—that is, that these experiences are unfair—and help students recognize and think about ways to respond to injustice (Nucci & Ilten-Gee, 2021). Notably, the many constraints on teachers' time and the high demandingness of their jobs may play an important role in the extent to which many teachers engage in this work, amidst their many other instructional responsibilities and administrative tasks (Kim, 2019).

Research has explored the positive effects of teachers talking about race and ethnicity with their students, sometimes termed teacher “race talk” (Alvarez & Milner, 2018; Sue, 2016). Some research has examined the factors that make teachers more comfortable engaging in discussions about race and discrimination, such as holding less implicit racial bias themselves, feeling less concerned about being perceived as racist, and feeling personally motivated to be non-prejudiced (Tropp & Rucinski, 2022). We review this research in the section to follow.

Teacher Dialogue About Race

Compared with other types of social identities and discrimination, there exists the most prior research on teacher dialogue about race and ethnicity. Prior studies on teacher talk about race have illustrated the benefits of classroom conversations on children's intergroup biases. Classroom discussions about race can reduce racial prejudice in childhood through both direct instruction about prejudice (Hughes et al., 2007) and by fostering intergroup contact (Skinner &

Meltzoff, 2019). Schools are an important setting for ethnic-racial socialization (Hughes et al., 2016; Losinski et al., 2019), as the way race and ethnicity are discussed at school affects children's and adolescents' development of a positive racial identity and critical consciousness for students of minoritized racial or ethnic backgrounds (Aldana & Byrd, 2015; Bottiani et al., 2020; Pauker et al., 2015).

Adults tend to underestimate when children are aware of and able to discuss race (Sullivan et al., 2021), however; elementary teachers are less likely than high school teachers to have these conversations (Coles-Ritchie & Smith, 2017; Tropp & Rucinski, 2022). Recent research with a large sample of U.S. K-12 teachers found that teachers may not attempt to discuss issues of race because of their own implicit biases or because they are concerned about appearing racist (Tropp & Rucinski, 2022). Teachers also may simply have no training in what these conversations should or could look like. While most participants in a study of elementary and early childhood teachers reported thinking it is important to discuss race issues with their students, when asked to give examples from their classrooms, few teachers did (Vittrup, 2016). Rather, some teachers opted for a color-mute approach, while some reported not discussing race because they lack confidence in these conversations (Vittrup, 2016).

Prior studies of teacher talk about race and ethnicity set a useful foundation for understanding how teachers may talk about race, though much of this work has used small, localized samples and open-ended interview questions about teachers' attitudes toward ethnicity, race, and approaches in the classroom (Hazelbaker & Mistry, 2021; Vittrup, 2016). Large survey studies have focused on teachers' biases, confidence, and intentions to discuss race in the classroom, but have not asked specifically about how frequently teachers discuss racial discrimination with students (Tropp & Rucinski, 2022). This study adds to the existing literature

by asking a range of questions about teachers' beliefs in addition to their actual classroom practices with a sample of U.S. teachers.

The research reviewed here has established a paradox in which many teachers report believing ethnicity and race are important and worth discussing with students, yet few feel prepared for this task. Some teachers default to a colorblind approach, (Hazelbaker & Mistry, 2021; Jupp et al., 2016). Yet, when race is discussed in this way, rather than exploring the value of diversity or critically examining prejudice, students are less likely to identify racial discrimination at school (Apfelbaum et al., 2010). Therefore, more research has to understand the psychological and contextual factors that may promote teachers' frequency of talking about racial discrimination with their students in a way that acknowledges inequality.

Predictors of Teacher Dialogue about Race

School support. While many teachers report believing it is important to talk about race in the classroom, many report fear backlash from stakeholders, such as administrators, peer teachers, or parents (Alvarez & Milner, 2018). Teachers often report feeling unsure about whether parents would support these conversations and feeling concerned about backlash (Delale-O'Connor & Graham, 2019). One might expect that teachers who perceive support from both school administration and parents for race discussions in the classroom would be more likely to discuss race discrimination with students more frequently.

The Belief That Race Matters for Students. Teachers who are aware of the systems within schools that treat students differently based on identities such as race, gender, wealth, or religion are more likely to challenge the unjust treatment of their students (Nucci & Ilten-Gee, 2021). The act of a teacher noticing structural inequalities, such as the influence of race on their students' classroom experiences, is associated with the way teachers reason about pedagogical

decisions that support equity (Gotwalt, 2023). Teachers who understand how their students experience race and social exclusion based on group identity (Alvarez & Milner, 2018; Milner, 2017) may be more likely to discuss and confront social inequalities, while teachers with a “color-blind” point of view may be less motivated to engage with the topic in the classroom (Pollock, 2004; Sue, 2016).

Teacher Racial Identity. White teachers may feel ambivalent about discussing race and social injustice as an instructor (Epstein, 2019; Rand, 2021), uncomfortable (Sue et al., 2009), or simply unprepared (Alvarez & Milner, 2018; Buchanan, 2015), while Black and Latino teachers may talk more about race than White educators (Milner, 2017). However, in a large survey of teachers, Tropp and Rucinski (2022) did not find being White to be associated with less reported intention to engage in race talk. Therefore, research remains mixed on whether a teacher’s racial identity plays a role in the frequency of classroom talk about race discrimination.

Teacher Dialogue About Other Social Identities

While recent literature has examined how teachers approach talking about race, other forms of discrimination also persist and are relevant for teachers and students. All students are members of more social identities than just their racial group, including gender, socioeconomic status (SES), religious, and native language identities, among others.

Gender. Some literature has explored how teachers talk about gender discrimination with students. Kostas (2023) found that teachers were often unaware of the ways gender stereotypes and inequality enter their classrooms through course materials (Kostas, 2023). Teachers also may hold their own gender biases, which may make it difficult to teach to dismantle gender inequality (Acar-Erdol et al., 2022). This is an important area for more research, as girls may experience discrimination, especially in science, technology, engineering, and math (STEM) academic

contexts and when students perceive discrimination by a STEM teacher, this harms their engagement in school (Mulvey et al., 2022).

Socioeconomic status and wealth. Much less research has focused on how teachers talk about wealth or SES discrimination with students. Classroom conversations about wealth inequality and discrimination may give children a more complex understanding of economic inequality and social status hierarchies from a younger age (Heck et al., 2022). However, more research is needed to understand the socializing influences, including those at school, that shape children's reasoning about economic status and inequality (Ruck et al., 2019). In the United States, classroom discussions may be particularly important on the topic of wealth, as the potential for intergroup contact to reduce wealth-based prejudice among students may be low in an American school system largely segregated by social class (Reardon & Owens, 2014; Ruck et al., 2019). White, Mistry, and Chow (2013) explored how teachers in one socioeconomically diverse elementary school talked about socioeconomic status differences and inequalities with their students. While most teachers would make mention of SES as a domain of diversity, teachers still reported feeling unsure about the best ways to talk about it (White et al., 2013).

Religion. Some studies have also explored how and if teachers talk about religious discrimination or inequalities. Case studies in Northern Ireland have found that a teacher raising difficult classroom conversations about religious and cultural controversy provided opportunities for the teacher to support students in hearing one another share divergent points of view (King, 2012; McKeown & Taylor, 2022). A rise in anti-Semitic incidents in the United States in recent years indicates the need for more discussion of religious discrimination (Losinski et al., 2019). Additionally, Ramarajan and Runell (2007) have shown that teaching about religious pluralism can reduce Islamophobia. However, the discussion of multicultural education rarely includes a

discussion of religious diversity (Aronson et al., 2016), even though religious illiteracy may promote prejudice and discrimination against religious minorities (Moore, 2010). Teacher-led discussion about religious diversity and inclusion is an important potential pathway to reduce religious prejudice (Subedi, 2006), on which more research is needed.

Native Language. Finally, few studies have examined teachers talk about discrimination based on native language. In the United States, students learning English as a second language, or English language learners (ELLs) are at higher risk for bullying and discrimination at school (Peker, 2020). Teachers recognize that being an ELL results in differential access to classroom education, and teachers may struggle to make their classrooms inclusive spaces for ELLs (Migliarini & Stinson, 2021). Yet, little research has explored how teachers might discuss this domain of diversity or this type of discrimination in the classroom.

The Gap: Examining Teacher Beliefs and Dialogue About Multiple Identities

While understanding how teachers talk about different types of discrimination is a burgeoning area of literature, no studies that we have found have attempted to systematically examine how elementary teachers' beliefs, values, and talk about discrimination based on each of these different types of identities (race, gender, wealth, religion, and language) may differ. We expect that teachers' beliefs about prejudice, their own identity, and support from the administration and parents may be important in promoting teacher talk about discrimination. If teachers are better prepared to discuss issues of discrimination with students, this may reduce prejudice and exclusion students experience at school across different identities.

The Current Study

This study administered a survey to elementary school teachers across the United States to explore two central aims. The first aim of the study was to systematically examine teachers'

beliefs about the role of different identities for students, *values* about discussing discrimination based on these identities, and reported *frequency* of discussing five types of discrimination: race, gender, wealth, religion, and native language (Aim 1).

The second aim of this study was to examine whether a malleable theory of prejudice, school support, the belief that race affects students' education, and teacher race predict teachers' reported frequency of talking about racial discrimination. Because research suggests that teachers are particularly hesitant to discuss race in the classroom (Hazelbaker & Mistry, 2021; Tropp & Rucinski, 2022; Vittrup, 2016) as well as research showing the positive potential outcomes from teachers more openly discussing racial discrimination with students (Abacioglu et al., 2019; Hughes et al., 2007; Killen et al., 2022), the second aim focused on teacher talk about racial discrimination specifically (Aim 2).

Hypotheses

Aim 1: Beliefs, Values, and Frequency of Discussing Different Types of Discrimination

Beliefs, Values, and Frequency of Discussing Racial Discrimination. Regarding Aim 1, based on prior literature that teachers are concerned about speaking about race with students (Buchanan, 2015; Sullivan et al., 2021; Tropp & Rucinski, 2022), we hypothesized that teachers would report believing race has an impact on students' educational experiences at a higher rate than they would report valuing the use of class time for discussing race (H1a). Based on this same literature, we predicted that teachers would most highly report infrequent race talk categories (monthly, twice a semester, or once a semester) rather than evenly report all categories of race talk frequency (H1b).

Beliefs About the Role of Different Social Identities for Students. Next, we expected that teachers would be more likely to agree that each different form of identity (race, gender,

wealth, religion, and native language) plays a role in students' educational experiences than to disagree (H2a). We expected that teachers would be mixed on whether they valued discussing discrimination based on these forms of identity as a good use of class time given that some identities were viewed as more salient and appropriate issues to discuss than others (H2b).

Frequency of Talking About Different Types of Discrimination. We also predicted that teachers would report talking about race and gender discrimination more often than they would report discussing discrimination based on wealth, religion, or native language (H3). This may happen because teachers perceive race and gender as parts of their students' identity more easily, compared with social identities such as SES or religion, which may be less obvious. Additionally, race and gender are social categories of which children are aware from a young age (Mandalaywala et al., 2020), which may make children more likely to bring up issues regarding race or gender in the classroom themselves, prompting teachers to address these topics.

Aim 2: Predictors of Frequent Discussion of Racial Discrimination.

We had three main hypotheses regarding Aim 2. We predicted that a more malleable theory of prejudice would be associated with more frequent reported teacher talk about racial discrimination (Pauker et al 2022; Carr et al., 2012) (H4). We also predicted that teachers who believed that race plays a role in students' education would be more likely to report discussing racial discrimination (Gotwalt, 2023; Nucci & Ilten-Gee, 2021). (H5). Finally, we predicted that school support (administrative, parent) would be associated with more frequent reported teacher talk about racial discrimination (Alvarez & Milner, 2018; Phillip et al., 2017) (H6). We also included teacher race as a covariate, as research is mixed on whether there are significant differences in race talk and intention for race talk based on teacher race (Buchanan, 2015; Epstein, 2019; Tropp & Rucinski, 2022).

Method

Participants and Procedure

We surveyed third, fourth, and fifth grade teachers ($N=290$; 240 female; 46.2% White, 24.5% Black/African American, 8.6% Hispanic/Latino, 6.2% Asian/Asian American, 8.6% Multiracial, <1% Native Hawaiian/Pacific Islander, 5.5% other/declined to report race) across the United States. Participants ranged in age from 22 to 75 years old ($M = 41.38$, $SD = 12.21$) and in teaching experience from 0 to 30 years ($M = 12.83$, $SD = 8.98$). We restricted the survey to 3rd, 4th, and 5th grade teachers (8 – 11-year-olds) given that children in this age group are aware of group dynamics (McGuire et al., 2017), prejudice, and bias, and these grade levels have been targeted as an important time for change in children's prejudice and bias (Killen et al., 2022). We sought a national sample of teachers across the United States in order to gain a broad sense of teacher perspectives across different local contexts. We identified large, public school districts across different regions in the U.S. (West Coast, Midwest, Mid-Atlantic, Northeast, Southeast, and Southwest) and ranging in urban, suburban, and rural contexts to obtain the widest possible sample. Teachers from these districts were emailed directly with the opportunity to participate in an online survey. We also recruited from private schools in the Mid-Atlantic region via emails to principals, as individual teacher emails were not publicly available for private schools. More information about participants is displayed in Table 1.

Because the districts and schools in which participants taught varied in diversity in terms of race and ethnicity and socioeconomic status, we also asked teachers to report the level of diversity in their classrooms by race, ethnicity, gender, and SES, as well as whether their teacher training program prepared them to discuss race in the classroom. These item distributions are included in supplemental materials in Table S2. We then ran null multilevel models to compare

Table 1. *Participants Descriptive Statistics (N = 290)*

Teacher Demographic	Categories						
Grade	3 rd	4 th	5 th				
	92	99	99				
School type	Public	Private (non-R)	Private (R)	Charter	Other		
	245	16	23	4	2		
Race/ethnicity	Asian	Black	Latinx	Multiracial	White	Other	Decline
	18	71	25	26	134	3	12
Gender	Female	Male	Other	Decline			
	240	41	3	6			
Highest level of education	Bach.	Masters	Doctorate	Decline			
	87	195	7	1			
Annual household income	>25K	25-49K	50-74K	75-99K	100-149K	150-199K	>200K
	3	20	96	62	64	27	16

Note: Non-R = non-religious, R = religious

differences by location, to see if teachers' reported location was associated with our measures. We found that location did not predict differences in any measures, indicating that, among our data, location differences, including differences in racial, ethnic, gender, or SES diversity, did not associate with differences in teacher responses regarding their beliefs, values, and practices. While we aimed to represent and analyze the effects of sub-regions of the U.S. and explore differences by classroom diversity, we did not have even response rates from each region. All intraclass correlation values for models predicting each measure by location were below .03. Therefore, we did not include location in our analyses.

The survey took 15-25 minutes on average to complete. All participants first signed an informed consent form and were informed the survey would be anonymous and confidential, and

that the report would characterize the sample nationally without identifying specific schools. Data were only included for respondents who completed 90% of the survey or more. Teachers were compensated with a \$5 electronic Amazon gift card. This study was approved by the Institutional Review Board [#1093717-26] at the University of Maryland, College Park.

Measures

Measures were developed based on modifications of previous measures (Carr et al., 2012; Milner IV, 2017) and feedback from a pilot study conducted with 20 teachers in 2020 which tested original measures from the Teachers' Race Talk Survey (Milner IV, 2017) and Theory of Prejudice scale (Carr et al., 2012). We modified the Teachers' Race Talk Survey by altering the responses from open-ended to Likert-type response items to measure teacher responses quantitatively. We also altered the language of some items so that they would be reverse-coded, to avoid the measures being at ceiling, based on findings from the pilot. We adapted items about race to also include items about discussing gender, religion, wealth, and English as a second language to address how teachers talk about more relevant identities and types of discrimination, in addition to race. The Theory of Prejudice scale was modified to use five of the original six items based on pilot participant feedback and the Likert response options were altered to avoid a ceiling effect, based on findings from the pilot.

Belief that Identity Plays a Role in Students' Education. The measure for belief that identity plays a role in students' education was also adapted from the Teachers' Race Talk Survey (Milner IV, 2017) to apply to not only race, but also to gender, wealth, religion, and native language. Participants were given the statement "[Identity, e.g., race] plays a role in the educational experiences of my students." and were given Likert-type response options: 1 = *Strongly disagree* to 6 = *Strongly agree*.

Valuing Discussing the Identity in Class Time. Teachers' values about using class time to discuss each type of identity (race, gender, wealth, religion, and first language) was an adapted measure from the Teachers' Race Talk Survey (Milner IV, 2017) to apply to each of the five identities. Participants were given the statement "Discussing [Identity, e.g., race] with my class is not a good use of class time." and were given Likert-type response options: 1 = *Strongly disagree* to 6 = *Strongly agree*. The item was reverse coded for analysis.

Frequency of Discussing Discrimination. Teachers were asked for frequency of discussing discrimination based on race, gender, wealth, religion, and native language. For each type, participants were asked "How often do you discuss discrimination based on [identity, e.g., race] with your students?" and were given Likert-type response options: 1=*Once or less a semester*, 2=*Twice a semester*, 3=*Monthly*, 4=*Weekly*, 5=*Daily*.

Theory of Prejudice. We used five items adapted from the Theory of Prejudice (ToP) scale (Carr et al., 2012) as the measure of mental state knowledge. The Theory of Prejudice scale was modified to use five of the original six items based on pilot participant feedback and the Likert response options were altered to avoid a ceiling effect, based on findings from the pilot. ToP was scored as a mean of participants' five responses, with each item having a six level Likert-type scale from 1 = *Strongly disagree* to 6 = *Strongly agree*. E.g., "No matter who somebody is, they can always become a lot less prejudiced." We reverse scored three of the five items, such that a score closer to 6 represents more malleable, or growth, ToP, while a score closer to 1 represents a belief that prejudice is more fixed. Therefore, teachers with higher ToP scores showed a stronger belief that prejudice can change. Based on previous literature measuring ToP (Carr et al., 2012; Pauker et al., 2022), we treated ToP scores as continuous.

School Support. School support was measured as a mean composite of two items adapted from the Teachers' Race Talk Survey (Milner IV, 2017). The first item measured perception of administrative support for classroom discussion about race, "The administration at my school supports conversations about race inside the classroom" and the second measured teacher perception of parent support for classroom discussion of race, "In general, my students' parents/guardians would support conversations about race in my classroom." For both items, participants responded on a Likert-type scale from 1 = *Strongly disagree* to 6 = *Strongly agree*. We computed a Spearman-Brown coefficient as the most appropriate reliability metric for a two-item scale (Eisinga et al., 2013) and found it to be .78, suggesting high reliability between parent and administrative support.

Teacher Race. Teachers reported their racial identity with the options Asian, Black/African American, Hispanic/Latino, American Indian or Alaska Native, Native Hawaiian, Pacific Islander, White, Other, and Decline to answer. Based on the sample size, we did not have enough power to analyze each racial group separately. Therefore, consistent with prior literature (Tropp & Rucinski, 2022), we used a binary version of this variable in which White = 1, Non-White = 0.

Analysis Plan

Aim 1: Analyses of Beliefs About, Valuing of, and Frequency of Discussing Different Types of Discrimination

Analyses were conducted in IBM SPSS Statistics 27. To analyze H1a, that teachers would report believing race impacts students' education at a higher rate than they reported valuing class time to discuss race, we conducted a paired-samples t-test comparing the means for each measure. To analyze H1b, that teachers would report infrequent race talk categories

(monthly, twice a semester, or once a semester) rather than evenly report all categories of race talk frequency, we conducted a chi-square goodness of fit test on the five frequency response categories for reported talk about racial discrimination, with the null hypothesis that responses would be equally distributed between categories.

Next, we analyzed our second hypothesis. To analyze H2a, that teachers would be more likely to agree than to disagree that each different form of identity (race, gender, wealth, religion, and native language) plays a role in students' educational experiences, we first dichotomized the variable into general "agree" and "disagree" responses. This procedure is common in research using Likert-style scales in research rooted in the social reasoning developmental model to aid in interpretation (see Cooley et al., 2019; Elenbaas et al., 2016; and Sims et al., 2023 for examples). We then conducted a Pearson's Chi-square goodness-of-fit test for each measure with the null hypothesis that participants would be equally distributed between the "agree" and "disagree" categories in response to the statement, "[Identity] plays a role in the educational experiences of my students." We repeated this process to assess the items regarding valuing discussing discrimination with class time, though this was exploratory based on limited research (H2b).

For the analysis for H3, that teachers would report talking about race and gender discrimination with higher median frequency than they would report discussing discrimination based on wealth, religion, or native language, we conducted a Friedman's ANOVA (Friedman, 1937) with Wilcoxon pairwise comparisons among the five items (Pereira et al., 2015). We used this nonparametric test because of the ordinal nature of the measure and because comparisons of distributions between measures revealed that the homogeneity of variance assumption was not met.

Aim 2: Analysis for Predictors of Frequent Talk About Racial Discrimination

For Aim 2, analysis of factors predicting more frequent reported talk about race discrimination, we first conducted a null multilevel ordinal logistic regression model to assess between-location variability in the frequency of reported teacher talk about race discrimination. Finding low ICC ($ICC = .007$), we determined low between-location variability and did not use a multilevel model for analysis. We then ran a cumulative odds ordinal logistic regression analysis with proportional odds with theory of prejudice score (H4), belief race affects students' educational experiences (H5), school support composite (H6), and teacher race predicting the reported frequency of discussing racial discrimination, testing teacher race as a moderator for the other predictors by including teacher race interactions.

Results

Descriptive Statistics

Mean values, standard deviations, and Pearson correlations are displayed in Table S1 (see supplemental materials). Beliefs and values measures represent Likert-type responses from 1 = *Strongly disagree* to 6 = *Strongly agree*.

The measure of frequency of discussing different types of discrimination was treated ordinally, as by nature the response scale options lacked equidistance. Percentages of responses in each frequency category for these items are displayed in Table 2. As shown in Table 2, participants varied in how frequently they reported discussing each type of discrimination. Next, we report on findings related to each hypothesis.

Table 2. *Percentage of participants responding in each time period for discussing types of discrimination*

	Once or less a semester	Twice a semester	Monthly	Weekly	Daily
Gender	50.0%	15.9%	25.2%	8.3%	.7%
Religion	56.9%	24.1%	15.9%	3.1%	0%
Wealth	59.3%	17.6%	15.5%	6.6%	1.0%
Native language	39.3%	19.0%	22.1%	12.1%	7.6%
Race	19.3%	23.1%	35.5%	17.2%	4.8%

N = 290.

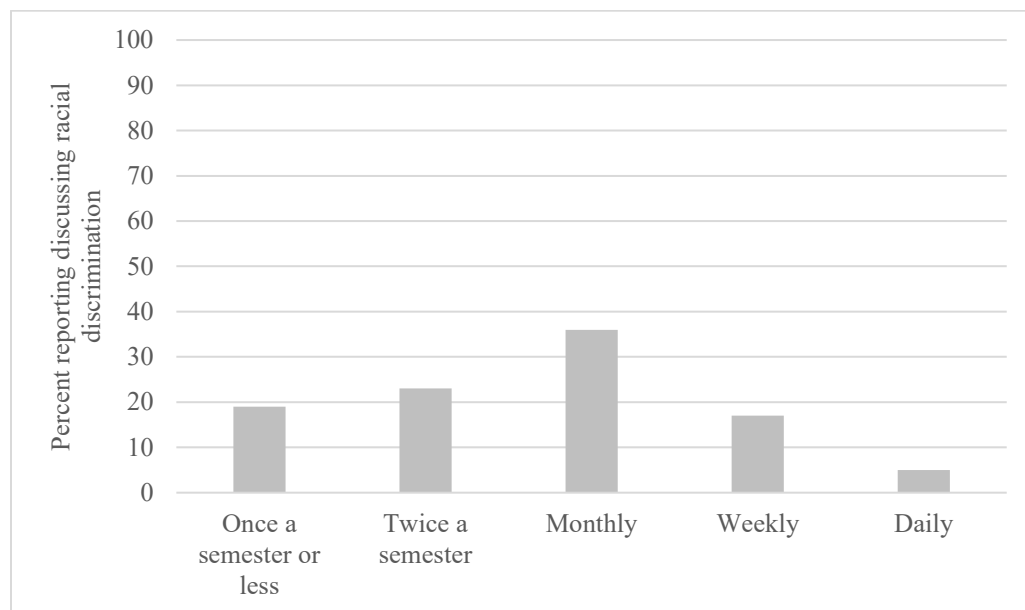
Aim 1: Beliefs, Values, and Frequency of Discussing Racial Discrimination

Beliefs, Values, and Frequency of Discussing Racial Discrimination. Contrary to our hypothesis (H1a), we found that on average, teachers reported more strongly valuing the use of class time to talk about racial discrimination ($M = 4.79$, $SD = 1.23$) than they reported agreeing that race plays a role in their students' educational experiences ($M = 3.97$, $SD = 1.64$), $t(289) = -8.37$, $p < .001$. Contrary to what is often expected, many teachers do value discussing race during class time. At the same time, many teachers do not perceive the role race plays in their students' education.

A Pearson's chi-square goodness of fit test for how frequently teachers reported talking about racial discrimination in the classroom (H1b) resulted in evidence to reject the null hypothesis that teachers' responses were evenly distributed across discussion frequency response categories, $\chi^2(4) = 70.86$, $p < .001$. Confirming our hypothesis, we found that teachers most commonly reported speaking about racial discrimination monthly (35.5%) or twice a semester (23.1%). Teachers were least likely to report speaking about racial discrimination daily (4.8%), followed by weekly (17.2%). Less than a quarter of teachers (19.3%) reported talking about racial discrimination once a semester or less. These results are displayed in Figure 1 and Table 2.

Overall, few teachers reported speaking about racial discrimination on a regular basis (weekly or daily) with their students.

Figure 1. *Percent of teachers reporting discussing racial discrimination at each level of frequency*



Beliefs About the Role of Different Social Identities for Students. We conducted Pearson's chi-square goodness of fit tests for each measure to test whether teachers were more likely to agree than disagree that each type of identity affected students' education and that discussing each type of identity is a good use of class time (H2a). Regarding teachers' beliefs that different identities play a role in students' educational experiences (H2a), our hypothesis was confirmed for wealth ($\chi^2(1) = 43.26, p < .001$), native language ($\chi^2(1) = 143.50, p < .001$), and race ($\chi^2(1) = 40.22, p < .001$). About 69% of teachers agreed that wealth plays a role in students' educational experiences, 85% of teachers agreed that native language plays a role, and 69% of teachers agreed that race plays a role. The number of teachers who agreed with the statements that gender ($\chi^2(1) = 1.38, p = .24$) and religion ($\chi^2(1) = .00, p = 1.00$) play a role did

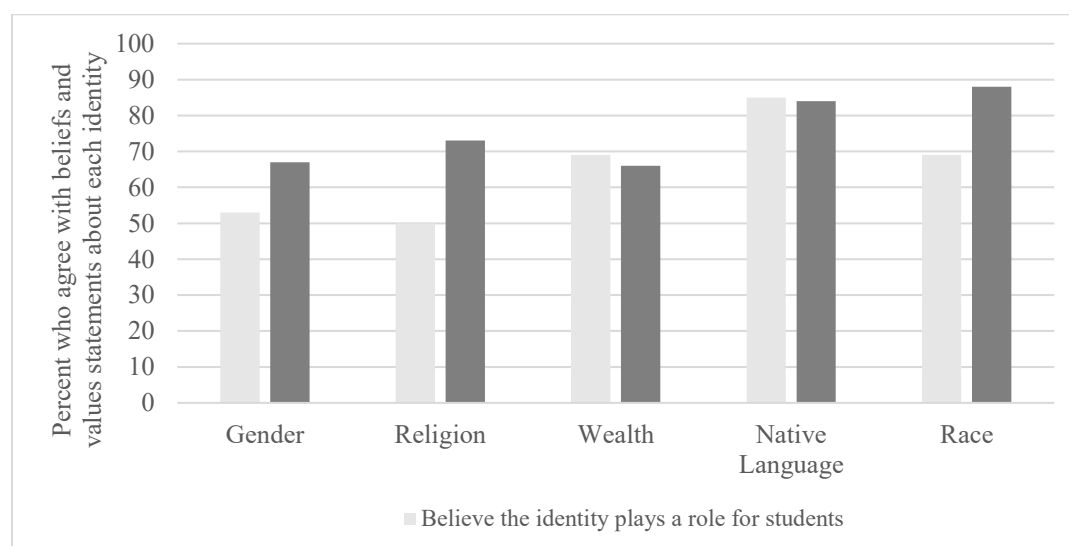
not significantly differ from the number who disagreed with these statements. Figure 2 displays the percentage of teachers who agreed that each form of identity plays a role in students' education. Overall, teachers agreed that wealth, native language, and race play a role in students' education.

In our analyses of whether teachers valued discussing each of these identities with class time (H2b), we found that teachers agreed significantly more than disagreed that they valued the use of class time to discuss each of the five identities, contrary to our expectations that it would be mixed. Sixty-seven percent of teachers agreed that discussing gender was a good use of class time ($\chi^2(1) = 33.12, p < .001$), 73% of teachers agreed with the statement for discussing religion ($\chi^2(1) = 61.92, p < .001$), and 66% of teachers agreed for discussing wealth inequalities ($\chi^2(1) = 29.19, p < .001$). Among the five identity items, the highest proportion of teachers agreed with the statements about valuing class time for discussing native language differences (84%, $\chi^2(1) = 132.47, p < .001$) and race (88%, $\chi^2(1) = 169.95, p < .001$). Figure 2 displays the percentage of teachers who agreed that discussing discrimination based on each identity is a good use of class time. In sum, the majority of teachers agreed that all five identities were worth discussing with class time, though they agreed at the highest rates regarding race and native language.

Frequency of Talking About Different Types of Discrimination. Using a Friedman's ANOVA, we investigated whether teachers would report talking about race and gender discrimination more often than they would report discussing discrimination based on wealth, religion, or native language (H3). We used this nonparametric test because of the ordinal nature of the measure and because comparisons of distributions between measures revealed that the homogeneity of variance assumption was not met. We found that participants reported talking about each type of discrimination with significantly different levels of frequency overall, $\chi^2(4) =$

298.753, $p < .001$. We then conducted post-hoc Wilcoxon signed rank tests for pairwise comparisons of the reported frequencies of talking about each type of discrimination.

Figure 2. *The percentage of teachers who agreed with beliefs and values statements about each identity.*



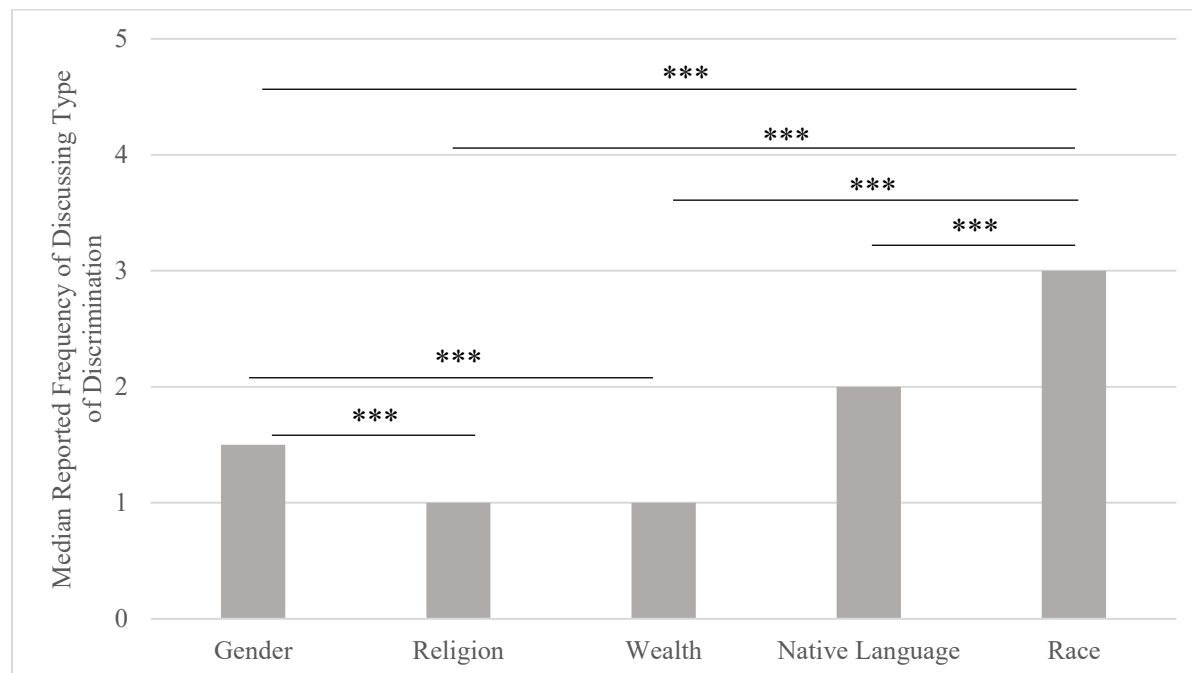
In support of our hypothesis, we found that teachers reported talking about racial discrimination with the highest median frequency ($Mdn = 3.00$, “Monthly”). Teachers reported frequency of discussing racial discrimination at a significantly higher rate than discussing discrimination based on gender ($Z = -10.21$, $p < .001$), religion ($Z = -11.79$, $p < .001$), wealth ($Z = -11.18$, $p < .001$), or native language ($Z = -4.63$, $p < .001$). Teachers reported talking about native language differences at the next highest median frequency ($Mdn = 2.00$, “Twice a semester”).

Teachers reported discussing gender discrimination with a median frequency of 1.5 on the five-point scale, between “once a semester or less” and “twice a semester”. Partially supporting our hypothesis, teachers reported frequency of discussing gender discrimination at a

significantly higher rate than discussing discrimination based on wealth ($Z = -3.76, p < .001$) and religion ($Z = -4.98, p < .001$), but teachers' reported frequency of discussing native language discrimination was significantly higher than the reported frequency of discussing gender discrimination ($Z = -4.03, p < .001$).

The median reported frequency of talking about both religious and wealth discrimination were the lowest ($Mdn = 1.00$, "Once or less a semester"). These results are displayed in Figure 3. The percentages of teachers who reported talking about each type of identity at each frequency level are reported in Table 2. Overall, teachers reported discussing racial discrimination at the highest median frequency, followed by native language, while teachers reported discussing gender, religious, and wealth discrimination less than twice a semester, at median.

Figure 3. *Median Reported Frequency of Discussing Types of Discrimination*



Note: $N = 290$, $*p < .05$, $**p < .01$, $***p < .001$. 1 = Once or less a semester, 2 = Twice a semester, 3 = Monthly, 4 = Weekly, 5 = Daily.

Aim 2: Predictors of Frequent Talk About Racial Discrimination

To investigate whether teachers' reported frequency of talking about racial discrimination varied by level of malleable theory of prejudice, belief race plays a role in students' education, and school support for race talk, we conducted an ordinal logistic regression with proportional odds predicting teacher talk about racial discrimination. We also included teacher race (White, Non-White), and tested for whether teacher race moderated the effects of the other predictors. The proportional odds assumption was met, based on a likelihood ratio test comparing the proportional odds model fit to a model with varying location parameters, $\chi^2(21) = 27.95$, $p = .14$. A test of multicollinearity found VIF for all variables to be approximately 1, so there was no evidence of multicollinearity. The model significantly predicted teacher race talk frequency better than the intercept-only model $\chi^2(7) = 73.795$, $p < .001$.

Table 3. *Ordinal Logistic Regression Model Predicting Odds of Daily Teacher Talk About Racial Discrimination*

Predictor	<i>B (SE)</i>	Wald's χ^2 (1, 289)	<i>Exp(B)</i> [95% CI]
ToP Score	.44 (.21)*	4.48	1.56 [1.03, 2.24]
School Support	.68 (.18)***	13.95	1.98 [1.38, 2.84]
Belief race affects education	.34 (.10)***	11.36	1.41 [1.15, 1.00]
White	2.21 (1.53)	2.08	9.08 [.45, 182.11]
White*ToP Score	-.27 (.27)	.91	.77 [.44, 1.31]
White*School Support	-.43 (.22)	3.78	.65 [.42, 1.00]
White*Belief race affects education	1.44 (.13)	1.15	1.16 [.89, 1.51]

Note: $N = 290$, * $p < .05$, ** $p < .01$, *** $p < .001$

For a one-point increase in more malleable mindset on the theory of prejudice scale, teachers have 1.56 times the odds of reporting *daily* classroom talk about racial discrimination than the *lower frequency levels* of discussing racial discrimination in class, holding all else constant, 95% CI [1.03, 2.24], Wald $\chi^2(1, 289) = 4.48$, ($p = .03$). With a one-point higher level of school support for discussing race, teachers have nearly twice the odds of reporting daily classroom talk about racial discrimination than the lower frequency levels of discussing racial discrimination in class, holding all else constant, $\exp(B) = 1.98$, 95% CI [1.38, 2.84], Wald $\chi^2(1, 289) = 13.95$, ($p < .001$). For a one-point increase in belief that race plays a role in students' education, teachers have 1.41 times the odds of reporting daily classroom talk about racial discrimination, compared with the lower frequency levels of discussing racial discrimination in class, holding all else constant, 95% CI [1.15, 1.00], Wald $\chi^2(1, 289) = 11.36$, ($p < .001$).

Thus, supporting our hypotheses, we found that having a more malleable theory of prejudice, reporting higher school support for race talk, and having a stronger belief that race affects students' education all significantly predicted a higher odds of daily reported discussion of racial discrimination, compared with lower frequencies of reported discussion. Teacher race did not significantly predict variability in odds of daily talk about racial discrimination. Interactions between teacher race and other predictors were also nonsignificant, suggesting that teacher race does not moderate the role of theory of prejudice, school support, or teachers' beliefs that race affects their students' education. See Table 3 for model coefficients.

Discussion

The novel findings of this study pertained to how teachers think and talk about issues of prejudice and discrimination in the classroom. We investigated teachers' beliefs, values, and frequency of discussing discrimination based on race, gender, wealth, religion, and native

language. A deeper understanding of these issues is crucial for reducing experiences of bias, prejudice, and social exclusion for minoritized students at school, which may negatively affect students' mental health, school belonging, and academic outcomes (İnan-Kaya & Rubies-Davies, 2022; Peterson et al., 2016; Rivas-Drake et al., 2014).

Specifically, we found that while most teachers agreed that all five identities were worth discussing during class time, teachers only reported talking about race and native language twice a semester or more. Further, most teachers reported believing that wealth, race, and native language play a role in students' educational experiences, but only about 50% of teachers held the same view for gender and religion. This is important to consider in the context of research showing gender discrimination in STEM learning contexts (Mulvey et al., 2022). Elementary teachers may not be aware of the ways their female students are at risk for discrimination in the math and science classroom.

On average, teachers more strongly agreed that they valued using class time to talk about racial discrimination than they reported believing race played a role in students' education. This finding is important, as it may indicate that whether teachers perceive the role of race in their students' daily lives at school or not, some teachers hold the value of discussing racial discrimination anyway. In fact, fewer than 25% of teachers reported weekly or daily discussions about racial discrimination, though most teachers reported valuing using class time to talk about race. Thus, teachers value and believe that issues of discrimination are relevant in their students' lives, yet few teachers report frequently discussing these issues with their students.

Our results across the different types of identities suggest that highly valuing using class time to discuss a type of discrimination, however, may be a key contributor to more frequent class discussions of discrimination based on that identity. Teachers reported the lowest median

frequencies of discussing gender, religious, and wealth-based discrimination, and we saw this same pattern in terms of teachers' reported valuing of the use of class time for discussing these identities, relative to native language and race. Meanwhile, though less than 25% of teachers reported discussing racial discrimination on a weekly or daily basis, this was still the most frequently reported type of discrimination discussed, and the most highly rated in terms of the value of using class time for discussion, relative to the other identities assessed here.

These findings shed light on prior research investigating similar questions. Abacioglu and colleagues (2019) investigated whether teachers' attitudes regarding multiculturalism and ethnic minorities moderated the effect of teacher discussion about issues of diversity on student engagement, yet they did not find evidence for a moderating effect of teacher attitudes. The authors concluded that what matters most is teachers' actual classroom practices in discussing issues of diversity, rather than their attitudes (Abacioglu et al., 2019). Our results reveal that this may be because teacher values and beliefs can conflict with their practices. A teacher may report that they believe discussing discrimination is a good use of class time but do not necessarily engage in these discussions with students. Rather, there are additional contextual factors that, combined with teachers' beliefs and mental state knowledge, may better explain teachers' discussion practices.

This study identified what these other contextual factors may exist that explain teachers' practices, specifically school support, belief that race affects students, and theory of prejudice. Thus, a novel finding to an understanding of the factors that motivate and enable elementary teachers to discuss racial discrimination in the classroom. Prior survey research has found elementary teachers to be less likely to discuss race, compared with high school teachers (Tropp & Rucinski, 2022). Interview research has revealed that elementary teachers may use a color-

mute approach and refrain from engaging with the topic of discrimination (Vitrup, 2016). For this reason, we investigated the aspects of teachers' beliefs and context that enable conversations about race that acknowledge discrimination and prejudice.

We found that having a more malleable theory of prejudice, believing that race affects students' education, and perceiving stronger school support from parents and administrators all predicted more frequent reported talk about racial discrimination. Former research has examined teachers' general feelings of administrative support in relation to *intentions* to discuss race (Tropp & Rucinski, 2022), but has not measured teachers' perceived support *for discussing issues of race*, specifically, as we did here. Further, while prior research has shown qualitatively that teachers are concerned about the level of parent support they would receive for talking about race (Delale-O'Connor & Graham, 2019), this study quantitatively linked teachers' perception of parent support to discussion frequency.

We did not find teacher race to be a significant predictor of daily frequency of discussing racial discrimination, which supports some prior findings (Tropp & Rucinski, 2022) and contrasts with others (Buchanan, 2015). This may be because we collapsed race into White and Non-white categories. However, it may also be that the beliefs, supportive school contexts, and prejudice mindset linked to discussing race with students motivate teachers from different racial and ethnic backgrounds to have these conversations.

This study is also novel in its integration of theoretical models. We drew on the social reasoning developmental framework (Killen & Rutland, 2011) to provide an understanding of how social identity such as race, aspects of group context such as school support, and beliefs are coordinated as teachers make decisions about discussing topics of discrimination in their classrooms. Research from the SRD perspective has considered mental state knowledge an

important component of this social reasoning (Elenbaas et al., 2020), but has not used the theory of prejudice as a measure of mental state knowledge in this context. This study examined the malleable versus fixed theory of prejudice (Carr et al., 2012) as a measure of mental state knowledge relevant to how a teacher reasons about class discussions on race, finding that having a more malleable theory of prejudice was associated with a higher odds of daily talk about racial discrimination in the classroom.

No studies that we have found have demonstrated that teachers who view prejudice as more changeable are more likely to frequently discuss racial discrimination with their students. This study demonstrated the theory of prejudice as a novel aspect of mental state knowledge that coordinated with a teachers' supportive school context and beliefs that race does matter for their students can lead to more frequent classroom conversations about racial discrimination. This study represents one of the first applications of the theory of prejudice framework to questions about teachers' motivations toward classroom discussions.

Implications for Teacher Training, Professional Development, and Schools

Importantly, research on fixed and malleable theories of prejudice indicates that these mindsets themselves are *not* fixed, but rather, individuals can be taught to have a mindset that prejudice can change (Carr et al., 2012, Tai & Pauker, 2021). This has implications for professional development and teacher training interventions to promote more classroom conversations about social inequality and discrimination. We found teachers reported they valued using class time to discuss issues of discrimination, but when asked how often they have these class conversations, few reported speaking about any of our investigated types of discrimination more than monthly. It may be that training or professional development strengthens teachers' understanding that prejudice can change. This would move teachers from simply having the

value of discussing discrimination to having conversations with their students, which may reduce students' intergroup biases and prejudices across a range of social identities (Killen et al., 2022; Skinner & Meltzoff, 2019). Additionally, more frequent class discussions of discrimination based on different social identities not only may reduce experiences of social exclusion for minoritized students at school but also may bolster students in both the majority and minority groups to challenge stereotypes and contribute to more inclusive school cultures (Killen & Rutland, 2022).

Our findings also highlight school support as a lever that may move teachers from merely valuing the use of class time to discuss discrimination toward having these discussions regularly. Past research has taken an exploratory look at how strongly teachers consider parent support of conversations about race (Delale-O'Connor & Graham, 2019). Our results show that when teachers feel supported by both parents and their administration for having discussions about race, they are significantly more likely to do so frequently. It stands to reason, though merits further study, to predict that higher levels of school support for discussions of a range of social identities, beyond just race, would be associated with more of these conversations in classrooms to address different types of discrimination and prejudice with students. This has implications for not only teacher training and professional development but also for programs that train principals. Training to ensure that administrators not only understand the importance of classroom discussions in reducing prejudice but that they also *communicate* their support for these classroom conversations to their faculty may also make these discussions more common.

A better understanding of teachers' current practices could inform practical next steps for teachers going forward, such as providing insights into whether certain school, grade, or class diversity contexts are better suited for teachers to discuss issues of discrimination embedded in

academic curriculum (see Hughes et al., 2007 for an example of discussions embedded into a U.S. history curriculum), focus on inter-cultural competence (see Barrett, 2018, for how European schools can classroom dialogues), or promote peer discussions specifically about social exclusion that occur in students' daily lives (see Killen et al., 2022 for an example of a stand-alone curriculum, which could be delivered during time dedicated to social-emotional learning).

While additional training may improve the frequency with which teachers hold conversations about identity and discrimination, we acknowledge that teachers are overburdened with administrative, instructional, and caring responsibilities (Kim, 2019). This represents a structural problem that must be addressed for lasting change to occur within classrooms. School district leaders and policymakers must first prioritize not only training, but curriculum selection and dedicated classroom time to make space for teachers to lead conversations about different identities, inclusion, and prejudice (Killen & Rutland, 2022). Policymakers should also attend to school zoning policies that promote desegregated schools, which create more opportunities for positive intergroup contact across lines of ethnicity, race, and socioeconomic status for students (Killen & Rutland, 2022). While the current study addressed only teachers in the United States, social and economic segregation exists across a range of national contexts. Thus this implication is relevant for policymakers across the globe.

Limitations and Future Directions

Though the present research extends prior work on teachers' beliefs and practices regarding discussing identity and discrimination, there remain several limitations. As this was one of the first studies to adapt the Teachers' Race Talk survey (Milner IV, 2017) to address additional aspects of identity (gender, wealth, religion, and native language), we limited how

many measures were adapted to address the various identities presented. Future research could also ask teachers about their perceptions of school support for discussing each different type of identity, as well as include a more nuanced measure of classroom diversity across each of the identities. This would allow for testing predictive models about what factors promote more frequent teacher talk about a range of social identities, beyond race. This future work might also benefit from a closer investigation of the school community demographics associated with levels of school support for discussing different social identities. We did not have detailed data on school diversity to pursue those questions here. Future studies could also expand on the items about the frequency of discussing each type of discrimination by asking teachers what these discussions look like in their classroom.

Though we found teacher race to be non-significant in predicting daily talk about racial discrimination, we did not have a large and diverse enough sample to test for differences between specific racial groups. Future research could investigate how often teachers report discussing different types of discrimination, based on teacher race as well as other aspects of teacher social identity. Likewise, while we sampled across regions of the United States, we did not have a large enough sample to conduct regional comparisons in teachers' beliefs, values, and frequency of discussing different types of discrimination. Additional research could examine differences across regions of the U.S., as well as include a greater focus on other aspects of context, such as classroom or school diversity across different domains of social identity. Further, the issues surrounding discrimination occur around the world. Collaborating with colleagues in different countries would also shed light on how to address these issues both locally and globally.

Conclusions

Prior research has established that classroom discussions about race and discrimination can have important effects, such as reducing children's intergroup bias and fostering positive intergroup contact which is crucial for reducing experiences of social exclusion and prejudice for minoritized students at school (Killen & Rutland, 2022; Levy et al., 2016). There exist inconsistencies between teachers' beliefs that discussing race is important and their actual reported frequency of discussing racial discrimination (Alvarez & Milner, 2018; Jupp et al., 2016). The present study contributes to an understanding of this paradox by applying the novel combination of the social reasoning developmental model and theory of prejudice to reveal specific factors that predict more frequent class discussion of race discrimination: school support, the mindset that prejudice can change, and the belief that race plays a role in students' education.

Importantly, research on how teachers discuss other types of discrimination and identity, such as gender, wealth, religion, and native language, in the classroom has lagged behind research about race. While some studies have examined separately the extent to which teachers discuss these different identities, the present research contributes to the field by systematically comparing teachers' beliefs about, values of, and frequency of discussing these different forms of identity and discrimination. This approach is novel in that it allows for a more complete picture of how teachers may be weighing the importance of discussing different types of social inequality. This knowledge is essential for designing teacher training and professional development that equips and motivates teachers to lead these important classroom conversations to make classrooms more inclusive spaces for all students.

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