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## Practice what you preach: The moderating role of teacher attitudes on the relationship between prejudice reduction and student engagement

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### H I G H L I G H T S

- Using multilevel models, we examined the relationship between teachers' prejudice reduction practices and students' engagement.
- Prejudice reduction practices focused on engaging in dialogue about diversity and confronting intergroup bias.
- Teachers' explicit multicultural attitudes and implicit attitudes towards ethnic minorities were possible moderators.
- Prejudice reduction predicted increases in student engagement for teachers with above-average positive explicit attitudes.
- Our models did not support such an interaction effect for implicit ethnic attitudes.

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### A B S T R A C T

The current study examined the relationship between teachers' prejudice reduction practices, focusing on dialogue about issues around diversity, and their students' engagement. We additionally investigated the potential moderation of this relationship by teachers' explicit multicultural attitudes and implicit attitudes towards ethnic minorities. Our multilevel models using 35 primary school teachers and 711 students showed that for teachers who reported above-average multicultural attitudes, prejudice reduction was positively associated with student engagement. Our results suggest that these teachers might not only promote multiculturalism as an abstract ideal, but they actually "walk the talk" and hence can improve educational lives of their students.

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As a consequence of non-European immigration from the 1960s, schools and classrooms in Western Europe have become increasingly culturally and ethnically diverse (Phalet, Andriessen, & Lens, 2004). This cultural and ethnic diversity has brought new

challenges for both students and teachers. Today, schools continue to be sites of intercultural tension (Thijs, Verkuyten, & Grundel, 2014) and educational achievement of ethnic minority students still lags behind that of their ethnic majority peers (OECD, 2014). This emphasizes a need to investigate factors that may help explain the unfavorable educational position of these students (Phalet et al., 2004). In the current study, we investigate teachers' prejudice reduction in the classroom as one factor that can improve students' educational position through increasing student engagement. Moreover, we investigate whether teachers' attitudes towards multiculturalism and ethnic minority outgroups might moderate

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this relationship.

Dovidio, Hewstone, Glick, and Esses (2010) defined prejudice as an attitude reflecting an overall evaluation of a group. Prejudice is often used in combination with similar concepts, namely stereotypes and discrimination. While prejudice is used to refer mainly to negative beliefs, feelings, and dispositions to behave negatively toward a group and its members, stereotypes refer to a set of characteristics ascribed to an individual based on the perceived characteristics of a group, and discrimination refers to the actual biased behavior towards individuals based on their group membership (Dovidio et al., 2010). Prejudice, stereotyping, and discrimination thus form different aspects of intergroup bias, and play a crucial role in the everyday educational experiences of ethnic minority students (Steele, 1997; Zirkel, 2004). These everyday experiences may include perceptions of cohesion, mutual respect, supportive relationships, and perceived fairness from teachers and peers. A positive experience of the classroom's social environment, in turn, has been consistently associated with adaptive motivational beliefs and achievement behaviors, and can have an influence on student engagement (Ryan & Patrick, 2001; Urdan & Schoenfelder, 2006; Velayutham & Aldridge, 2013).

Indeed, among the most notable factors influencing student engagement are the characteristics of the immediate learning environment (Furrer & Skinner, 2003; Velayutham & Aldridge, 2013). Student engagement, referring to the intensity and emotional quality of involvement with active, goal-directed, and persistent participation in the learning environment (Skinner, Furrer, Marchand, & Kindermann, 2008), has been consistently linked to positive student outcomes such as increases in learning, educational attainment, and achievement (Vollet, Kindermann, & Skinner, 2017). Confronting and challenging intergroup bias in the classroom through prejudice reduction may therefore improve the educational experiences of students.

Prejudice reduction, described by Banks (2004) as one of the five key dimensions of multicultural education, is an umbrella term referring to deliberate attempts to reduce prejudice, stereotyping, and discrimination, and to develop positive attitudes between different ethnic and cultural groups. Although the effects of such intergroup bias on student functioning has received some attention (e.g., school performance, physical health, mental health; Camicia, 2007), the direct positive relationship between prejudice reduction efforts and student engagement has not yet been studied. In the current research, we study prejudice reduction that focuses on engaging in dialogue about issues around diversity and confronting intergroup bias.

The success of such attempts can be influenced by the teachers' worldviews that are either consciously expressed or more automatically communicated (Vezzali, Giovannini, & Capozza, 2012). We therefore also investigate the role of teachers' attitudes in the current study. Attitudes are defined as tendencies to evaluate and respond to objects, people, issues or situations in a specific manner (Rokeach, 1968). A mismatch between expressed attitudes and behavior, or subtle signals of social biases may hamper the efforts to reduce intergroup bias (Byrnes, Kiger, & Manning, 1997) by possibly damaging the perceived authenticity of the teacher (Kreber, 2010). Attitudes are usually discussed with a distinction made between explicit and implicit attitudes. Explicit attitudes are evaluative judgments that are not automatic but effortful, more consciously controlled, and reflective of behavioral intentions that can be reported (Greenwald, McGhee, & Schwartz, 1998). Implicit attitudes, on the other hand, are attitudes that people are not initially aware of, difficult to monitor, and are automatically activated whenever the attitude object is present (Greenwald et al., 1998). In the current study, we specifically focus on teachers' explicit multicultural attitudes – familiarity with and sensitivity to issues of cultural

pluralism, and awareness of one's own biases (TMAS; Ponterotto, Baluch, Greig, & Rivera, 1998); and, implicit attitudes towards ethnic minorities – strength of associations between an ethnic outgroup and valence attributes (Greenwald et al., 1998).

Our research is guided by the following questions: 1) Are teachers' prejudice reduction practices associated with students' engagement? and 2) To what extent do teachers' explicit multicultural attitudes and implicit attitudes towards ethnic minorities moderate this relationship?

## 1. Prejudice reduction as a dimension of multicultural education

Multiculturalism depicts the need to endorse cultures of all groups (e.g., religious, ethnic, racial), to challenge prejudice, stereotyping, and discrimination, and to ensure that all students have equitable educational opportunities and access to knowledge regardless of their cultural backgrounds (Banks, 2004; Morrison, Robbins, & Rose, 2008; Okoye-Johnson, 2011). To effectively implement the wide range of multicultural practices in educational contexts, we need a comprehensive conceptualization and clearly outlined dimensions (Banks & Banks, 1995). For this study, we use Banks' widely used conceptualization of multicultural education as it is detailed and encompassing (Zirkel, 2008).

Banks (2004) delineates five dimensions that are key to the characterization of multicultural education, namely 1) content integration—creating a curriculum that includes materials from a variety of cultures and groups; 2) knowledge construction—creating an understanding and awareness of how implicit cultural assumptions, frames of reference, and perspectives shape the ways in which knowledge is constructed, identified, and interpreted; 3) prejudice reduction—working for reducing prejudice, stereotyping, and discrimination, and developing positive attitudes; 4) equity pedagogy—teaching strategies facilitating educational achievement of students from diverse groups, and therefore creating better equity between students; and, 5) empowering school culture—transforming the classroom and school culture and processes in ways that eliminate institutionalized discrimination, and allow all students to experience educational equality and cultural empowerment.

Multicultural education is designed to improve classrooms and schools in ways that will enhance intergroup relations and increase educational achievement of students with a minority background (Zirkel, 2008). Among the five dimensions, content integration has been the most widely researched in relation to student functioning. Studies report that when the curriculum includes references to students' cultural backgrounds and lives (e.g., languages, histories, issues like discrimination), students feel more valued and intellectually competent (Bean, Valerio, Senior, & White, 1999; Center, 2005; Gay, 2003; Sleeter, 2011). Consequently, they are more engaged, and perform significantly better in various skills such as language and literacy (Cummins, 2015; Sleeter, 2011). The aspects of multicultural education that extend beyond curriculum and instruction and tap everyday interactions have been suggested to have an even more direct effect on personal experiences of students (Crystal, Killen, & Ruck, 2010; Verkuyten & Thijs, 2013); hence, can be at least equally effective in promoting student engagement. Yet, these aspects have received little attention. A more systematic and quantitative investigation of prejudice reduction dimension of multicultural education, therefore, can be fruitful especially because informal prejudice reduction practices are the least dependent on institutional and contextual determinants, and can be largely initiated by teachers themselves.

The aim of prejudice reduction is to promote positive and inclusive intergroup attitudes and relationships between students of

different ethnic and cultural backgrounds. In our study, we focus on practices that include engaging in dialogue about issues around diversity wherein teachers actively confront prejudice, stereotyping, and discrimination. Prejudice reduction requires teachers to point out biases whenever they encounter them during school interactions or discussions of school material. It is suggested that, in situations where students express prejudice, stereotype or engage in discriminatory behavior, teachers should not overlook the problem but should take it as an opportunity to address the underlying reasons behind the problems in order to avoid similar instances in the future. Teachers should also avoid a simplistic approach to diversity that limits multiculturalism to celebration of holidays and food, but should motivate their students to engage in rich conversations around their cultures and experiences (Sleeter & McLaren, 2009).

With less intergroup bias, students can concentrate and dedicate more time and resources to learning, rather than diverting their time with ethnically-based threats and quarrels (Okoye-Johnson, 2011). Previous studies examining the association between multicultural education and inter-ethnic attitudes and intergroup processes report that prejudice reduction practices positively influence outgroup evaluations and interethnic attitudes, and decrease interethnic biases and perceptions of peer discrimination (e.g., Thijs & Verkuyten, 2013). Teachers' encouragement of positive student interactions and promotion of mutual respect in the classroom improves students' feelings of psychological safety and comfort, and lowers academic anxiety (Goodenow, 1993). Accordingly, students may have higher self-efficacy beliefs and academic self-concept, are likely to hold higher expectancies for their educational success, and therefore show higher levels of interest and enjoyment in learning activities (Ryan & Patrick, 2001).

Failing to address intergroup bias, on the other hand, can not only have overt negative outcomes, such as bullying and other types of victimization (Rigby, 2004), but can also have more covert harmful effects on students (Fiske, 2002). An example phenomenon is stereotype threat described by Steele (1997), which refers to a decline in performance due to perceived attitudes and stereotypes in relation to one's group's expected performance in a school subject. These biases are significant set-backs for educational functioning as they disturb the learning environment (Byrd & Chavous, 2009; Ryan, 2003). They can lead students to disengage from school, school-related people, and activities, so that they distance themselves from the prejudicial aspects of the school. This could be adaptive by protecting the students from negative self-evaluation, but it can also be harmful in undermining their motivation to engage in learning activities (Camicia, 2007; Steele, 1997). Prejudice reduction practices might therefore mitigate the setbacks that are generated by intergroup bias.

## 2. Interaction of prejudice reduction with teacher attitudes

Many teachers are advocates of equitable educational opportunities and hence multiculturalism; however, their actual teaching practices may not always be optimal and might show shortcomings (Reupert, Hemmings, & Connors, 2010). For instance, teachers were reported to find it hard to discuss sensitive topics such as racism and discrimination; and to endorse unconscious biased attitudes that can be expressed in subtle, non-verbal behaviors outside of their control (Vezzali et al., 2012). Alternatively, although teachers might feel obligated to engage in multicultural teaching practices due to their school's institutional policies, these practices may not be in line with their own world-views and self-concepts. Hence, teachers may communicate different values through their daily interactions, either deliberately or automatically (Vezzali et al., 2012). In our study, we try to account for teachers' attitudes, as

the extent to which teachers' prejudice reduction efforts succeed may depend on whether or not their attitudes are in line with what they aim to promote in their students (Byrnes et al., 1997).

Specifically, we focus on teachers' explicit multicultural attitudes and implicit attitudes towards ethnic minorities. Teachers who report more positive multicultural attitudes are more aware of their students' cultural background and their own socialization biases, value diversity as an asset, address multicultural issues in the teaching process, and they were found to be more effective in their prejudice reduction efforts (Ponterotto & Pedersen, 1993). While assessment of explicit attitudes may capture people's beliefs or knowledge, assessment of implicit attitudes may capture people's formed associations between attitude objects and their evaluations that may be expressed in subtle ways (Strack & Deutsch, 2004). These implicit attitudes may have been developed, for instance, by repeated exposure to negative outgroup portrayals displayed through the mass media (van Dijk, 2015). Implicit attitudes towards ethnic minorities can affect teachers' perceptions of and judgments regarding the members of the outgroup (Olson & Fazio, 2009). They can also guide spontaneous behavior especially in daily interactions: implicit attitudes might surface as negative non-verbal behaviors such as avoidant posture, less eye contact, and increased social distance (Dovidio, Kawakami, & Gaertner, 2002).

## 3. Student engagement in the classroom

Engagement refers to a multidimensional construct, involving both emotional and behavioral dimensions. Emotional engagement reflects the presence of positive emotions (e.g., interest) and absence of negative emotions (e.g., anxiety, frustration), and the motivation to be involved in a task. Behavioral engagement reflects how much attention, effort, and persistence the student shows in the initiation and execution of a learning activity (Skinner et al., 2008).

Student engagement is considered important for students' educational functioning as it improves learning, academic progress, positive expectations about one's own academic abilities, and achievements (Hughes, Wu, Kwok, Villarreal, & Johnson, 2012; Ladd & Dinella, 2009). Engagement has also been shown to not only predict short-term educational achievement, but also long-term positive outcomes such as pleasure in work and ability to exert effort on work-related activities (Steinberg, Elmen, & Mounds, 1989), and capacity and motivation to take on challenges in general (Harter, 1996). Moreover, engaged students seem to be favored in social situations by receiving more positive reciprocal reactions and motivational support from their teachers (Skinner & Belmont, 1993).

Prejudice reduction works towards improving interethnic attitudes, intergroup relations, and peer relationships, which are part of an immediate learning environment that facilitates emotional and behavioral engagement. A cognitive component to engagement is also defined in the literature, reflecting efforts and approaches in learning, acquiring knowledge, and mastering skills promoted by education (Newmann, Wehlage, & Lamborn, 1992). However, prejudice reduction primarily relates to emotional and behavioral components. Fredricks, Blumenfeld, and Paris (2004) report in their review that acceptance by peers increases school satisfaction, whereas rejection lowers school interest. Both are aspects of engagement that pertain to its emotional component. Similarly, acceptance by peers increases efforts put in learning activities and bolsters socially accepted behavior, whereas rejection leads to lower participation in learning activities and facilitates poor behavior, which are aspects of engagement that pertain to its behavioral component (Fredricks et al., 2004).

#### 4. The current study

In sum, we investigated the relationships between teachers' prejudice reduction practices and students' emotional and behavioral engagement, and whether these relationships are moderated by teachers' explicit and implicit attitudes. The current study tested the following hypotheses.

H1: The more teachers report practicing prejudice reduction, the higher students' behavioral and emotional engagement is.

H2: The more positive explicit multicultural attitudes are, the stronger the relationship between prejudice reduction practices and students' behavioral and emotional engagement is.

H3: The more positive implicit attitudes towards ethnic minorities are, the stronger the relationship between prejudice reduction practices and students' behavioral and emotional engagement is.

Certain student and teacher background characteristics were expected to be related to the investigated relationships. Specifically, female students tend to be more engaged than male students (Furrer & Skinner, 2003) and teachers' influence tends to drop with increasing student age (Steinberg & Silverberg, 1986). In addition, based on the proportion of ethnic minority students in their classroom and years of teaching experience, teachers may develop more knowledge and/or positive interethnic/intercultural attitudes due to increased exposure to different cultures (Allport, 1954; Pettigrew & Tropp, 2006). Lastly, female teachers might be more sensitive to issues that accompany diversity as they tend to be more sensitive to others' distress (McCue & Gopoiian, 2000). Therefore, we included student gender and age, and teachers' classroom ethnic minority percentage, years of teaching experience, ethnic background, and gender as control variables (covariates) in our models.

Another important factor to consider is the possibility that how prejudice reduction practices are associated with student engagement might differ depending on the ethnic background of the students and whether the student ethnic background is similar to that of the teacher. Previous research shows that multicultural education can have a larger effect on minority students (Shernoff & Schmidt, 2008). Moreover, teachers' ethnic background might be related to their knowledge, skills, and attitudes towards multiculturalism (Siwatu, 2007).

Nevertheless, we do not have separate hypotheses based on the ethnic backgrounds of students and teachers. The former is due to the expected beneficial effect of cohesion, fairness, and reciprocated respect for the learning behaviors of all students (Patrick, Ryan, & Kaplan, 2007). The latter is due to the insufficient number of teachers in our sample who were from other ethnic backgrounds than Dutch (only around 15%). We did, however, include them as control variables in our models.

#### 5. Method

##### 5.1. Participants

Participants were recruited from schools that are in collaboration with the Primary Teacher Education Programme of University of Amsterdam (UvA). In total, data were gathered from 35 upper primary school classroom teachers and their 711 students. The teachers had a mean age of 43.72 years ( $SD = 11.83$ , range = 24–63 years) and, on average, had 16.20 years of teaching experience ( $SD = 10.20$ ). They were predominantly female (66.2%) and primarily identified themselves as Dutch (85.7%). The participating students had a mean age of 10.6 years ( $SD = 0.95$ , range = 9–13 years). The gender composition was almost equally distributed with 51.8% females. The self-report measure of ethnic identification

indicated that 65.5% of students primarily identified themselves as Dutch, 32.2% identified primarily belonging to a different ethnic group than Dutch, whereas 2.3% did not report any identification.

##### 5.2. Procedure

Data were gathered as part of a course on diversity in a teacher education programme at UvA. Ethical approval for this study (2017CDE614) was granted by the Ethics Review Board of the Faculty of Social and Behavioral Sciences, UvA, the Netherlands. Second-year undergraduate students tested primary school teachers and children in their classrooms. Teachers provided active consent and parents provided passive consent to their children's participation to this study. Teachers completed a digital test battery and the children completed a pen-and-paper test battery under students' supervision.

All students were provided with a detailed, standardized protocol about the data collection prior to administering the tests, which they had the chance to practice as part of the module. During one month, in the spring of 2017, students administered the tests, which required approximately 20 min to complete both for the teachers and the children.

#### 6. Measures

##### 6.1. Student-level variables

**Student engagement.** Students reported on their engagement in the classroom on a short, 12-item version of the Engagement versus Disaffection with Learning Scale (Skinner et al., 2008). This scale included two subscales. The Behavioral Engagement subscale measured students' attention, effort, and persistence in initiating and participating in learning activities using 6 items. Example items are "I try hard to do well in school" and "When I'm in class, I just act like I'm working" (reverse coded). The Emotional Engagement subscale measured students' motivated participation during learning activities using 6 items. Example items are "I enjoy learning new things in class" and "Class is not all that fun for me" (reverse coded). The response scale ranged from 1 (no, that is not true) to 5 (yes, that is true). Cronbach's alphas were .75 for Behavior Engagement, 0.63 Emotional Engagement, and 0.79 for the overall Student Engagement.

**Demographics.** As students' background characteristics, we have included gender, age, and self-identified ethnic background. For our analyses, we controlled for gender and age, and explored the possible interaction of student ethnic background with the hypothesized relationships.

##### 6.2. Teacher-level variables

**Multicultural teacher practices: prejudice reduction.** Teachers reported on three items that have been successfully used by previous investigators in the Netherlands (e.g., Geerlings, Thijs, & Verkuyten, 2017; Verkuyten & Thijs, 2013). The items included: 'Do you talk about how all cultures should be respected?', 'Do you talk about how it is wrong to discriminate?', and 'Do you talk about how people from all cultures are equal?' Teachers reported on a 5-point response scale (1 = absolutely never, 5 = very often) with a Cronbach's alpha of .79.

**Teacher implicit ethnic attitudes.** The Implicit Association Test (IAT; Greenwald et al., 1998) measured the strength of teachers' associations between two different ethnic backgrounds (target) and valence words (attribute). The association strength is interpreted as an indication of an implicit attitude due to the theoretical definition of the attitude construct in terms of concept-attribute

associations; Greenwald, Nosek, & Banaji, 2003). Within the “compatible” block, native-Dutch names (i.e., female: Marloes, Claudia, Anouk; male: Pieter, Jeroen, Dennis) and positive valence words (i.e., happiness, peace, happy, beautiful, friend, love) were categorized using one response key while non-native Dutch names (i.e., female: Fatima, Naima, Meryem; male: Hassan, Ahmed, Farouk) and negative valence words (i.e., pain, anger, war, angry, cancer, poison) were categorized using a second response key; and vice versa in the “incompatible” block (Spearman-Brown corrected split-half reliability  $\alpha = 0.64$ ). People mostly identify the target and the attribute as belonging to the same category more rapidly when the association between them is stronger. The response time differences between compatible and incompatible blocks were calculated to assess the degree of implicit attitudes (larger difference means more negative attitudes) towards the ethnic minority group. These differences are represented using the D measure, which was calculated in accordance with the procedure described in Greenwald et al. (2003). A D-score has a range of  $-2$  to  $+2$ . Positive D scores signal that the participants associate the majority group more with the pleasant attributes compared to the minority group, and vice versa for the negative scores. Scores closer to zero represent less bias. We chose the Moroccan-Dutch group as the ethnic minority group during this task, as Turkish- and Moroccan-Dutch ethnic minority groups are at the bottom of ethnic hierarchy in the Dutch society. However, although both groups report similar levels of perceived discrimination, that of Moroccan-Dutch group is slightly higher (Luthra, 2011).

**Teacher explicit multicultural attitudes and awareness.** Using the Teacher Multicultural Attitudes Survey (TMAS; Ponterotto et al., 1998), we assessed teachers' familiarity with and sensitivity to issues of cultural pluralism in their classroom, and awareness of their own biases. Teachers responded to 20 statements on a 5-point response scale (1 = strongly disagree, 5 = strongly agree). An example item was “I believe the teacher's role needs to be redefined to address the needs of students from culturally different backgrounds”. A total score was calculated per participant after the negative items were reverse scored. Higher scores indicated more positive attitudes and higher awareness towards multicultural education ( $\alpha = 0.84$ ).

**Demographics.** As teachers' background characteristics, we included percentage of ethnic minorities in their classroom, years of teaching experience, and their self-identified ethnic backgrounds. For our analyses, we controlled for the ethnic minority concentration in teachers' classrooms and their years of teaching experience. In addition, we explored the possible interaction of teachers' ethnic background with the hypothesized relationships.

### 6.3. Data analysis

Eight multivariate outlier cases were dropped after checking the Mahalanobis distance ( $df = 13$ ,  $\alpha = 0.05$ ), leaving 35 teachers and 703 students for analysis. As only about 3 percent of the values were missing, we used multiple imputation to deal with missing data since listwise deletion would have biased our estimations (Kang, 2013).

We fitted a series of multilevel models using IBM SPSS Statistics for Macintosh, Version 24.0 to examine the unique contribution of teachers' prejudice reduction efforts, their implicit and explicit attitudes, and teacher and student background characteristics in predicting student engagement. This analytical strategy was chosen as it considers the nested structure of the data, avoids aggregation bias, and underestimation of standard errors (Snijders & Bosker, 2012). As students were nested in their teachers' classrooms, we considered both the student-level (Level 1) and teacher-level (Level 2) in this study. All the fixed and random effects represented in our

multilevel models were based on maximum likelihood estimation (ML). Level 1 predictors were centered around the grand mean for an easier interpretation. For all analyses, the statistical significance level was set to 0.05.

Following the stepwise sequential modeling method proposed by Raudenbush and Bryk (2002), we increased the complexity of the models with each subsequent step. In the first step, we estimated an unconditional baseline model without any predictors, to determine the variance of student engagement at the student-level (Level 1) and teacher-level (Level 2). This initial model was used as a baseline model for subsequent model comparisons. We used Akaike Information Criterion (AIC) to compare models. Although AIC values are not interpretable themselves, the difference in AIC values provide an easy to interpret and quick comparison to test the strength of evidence for choosing one model over another this is an objective indicator that is free from arbitrary  $\alpha$  levels. An AIC value difference of 2, regardless of the size of the AIC value, provides substantial support for the model with the lower AIC value (Burnham & Anderson, 2004).

In the second step, we added students' background characteristics as fixed effects of student engagement (Model 1). After accounting for the individual student characteristics, we added teacher-level variables to the equation (teachers' background characteristics, their level of prejudice reduction, and their explicit and implicit attitudes) to explain variance at the between-classroom level (Model 2). As a next step, we examined whether introducing interaction terms between teachers' prejudice reduction and their implicit and explicit attitudes improved the model fit (Model 3).

Finally, we allowed the significant student-level predictors' slopes to vary (Model 4). If the association between any of these variables and student engagement significantly varied across classrooms, we calculated cross-level interactions to explain the variance.

## 7. Results

### 7.1. Descriptive statistics

In the current study, we calculated and used the average score for overall Student Engagement scale for the following reasons: (1) the reliability of the Emotional Engagement subscale was relatively low, and the two subscales were moderately correlated ( $r = 0.40$ ,  $p < .01$ ), and (2) we did not have separate hypotheses for Behavioral and Emotional Engagement.

Mean values, standard deviations, and zero-order correlations among the variables are displayed in Table 1.

Students' Ethnic Background significantly correlated with Student Engagement, such that students who were from a non-Dutch ethnic background showed lower SE. Overall, most students reported relatively high Engagement ( $M = 3.94$ ,  $SD = 0.45$ ).

The correlations between teacher variables were mostly significant. The Percentage of Ethnic Minorities in the Classrooms was positively related to teachers' Prejudice Reduction practices, and their Implicit and Explicit Attitudes. This indicates that teachers engaged in more Prejudice Reduction practices and had relatively more positive Implicit and Explicit Attitudes in classrooms with more Ethnic Minority Concentration. In line with previous literature, the relationship between teachers' Implicit and Explicit Attitudes is moderate, signaling that Implicit and Explicit Attitudes tap on related but distinct aspects of attitudes (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005).

Overall, most teachers reported positive Explicit Multicultural Attitudes ( $M = 3.52$ ,  $SD = 0.45$ ), while they implicitly favored the ethnic majority compared to the ethnic minority group ( $M = 0.74$ ,

**Table 1**  
Descriptive statistics and correlations: Student- and teacher-level variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	Mean	SD
1. Student Gender	–												
2. Student Age	–.01	–										10.60	0.95
3. Student Ethnic Background	.04	.04	–										
4. Student Engagement	–.04	–.05	.08*	–								3.94	0.45
5. Classroom Ethnic Minority Percentage	.07	.07	.29**	–.04	–							48.50	39.50
6. Teacher Teaching Experience (in years)	–.05	–.04	–.03	.13**	–.27**	–						16.20	10.20
7. Teacher Gender	–.04	–.09*	–.06	.03	–.02	–.03	–						
8. Teacher Ethnic Background	.02	.15**	.14**	.00	.10**	.30**	.11**	–					
9. Teacher Implicit Ethnic Attitudes	–.03	–.19**	–.03	–.06	.10**	–.10**	–.26**	–.18**	–			0.74	0.48
10. Teacher Exp. Multicultural Attitudes	.01	.12**	–.12**	–.04	.23**	–.34**	.15**	–.06	–.32**	–		3.52	0.45
11. Teacher Prejudice Reduction	.03	–.00	.03	–.03	.16**	–.33**	.15**	–.19**	.07	.10**	–	3.46	1.00

Note. Student Engagement (variable 4) is measured on a scale ranging from 0 to 5.

The D-scores representing Implicit Ethnic Attitudes (variable 9) range from –2 to +2, with positive attitudes signaling more favorable attitudes towards the ethnic majority group hence more prejudice. Teacher Explicit Attitudes and Prejudice Reduction practices (variables 10 and 11) are measured on scales ranging from 0 to 5, higher scores indicating more positive Attitudes and engaging more often in Prejudice Reduction practices respectively. \* $p < .05$ . \*\* $p < .01$ .

$SD = 0.48$ ). In addition, most teachers reported to sometimes but not often engage in Prejudice Reduction practices ( $M = 3.46$ ,  $SD = 1$ ). As expected, female teachers showed significantly more positive Explicit Attitudes, less prejudiced Implicit Attitudes, and reported engaging in more Prejudice Reduction practices than male teachers. In addition, on average, teachers who self-identified as Dutch, reported significantly more positive Explicit Attitudes, engaged in more Prejudice Reduction practices, but also showed more negative Implicit Attitudes towards ethnic minorities, compared to teachers with other Ethnic Backgrounds. Self-identified Dutch teachers, in addition, reported being appointed in classrooms with a lower Percentage of Ethnic minorities, compared to teachers with other backgrounds.

## 7.2. Unconditional means model

To examine whether Student Engagement varied across classrooms, we fitted a separate unconditional means model in the first step of the analysis. The model contained the outcome variable Student Engagement (SE) and only intercept as the predictor. Results indicated significant variation in SE at Level 1 and Level 2. Intraclass correlations (ICC) showed about 11% variance in SE, which can be explained by the differences among classrooms.

## 7.3. Student-level covariates of student engagement

To identify the variables that were uniquely related to variation among SE, we modeled fixed effects of students' background characteristics: Age, Gender, and Ethnic Background. This first model (Model 1) substantially improved the prediction of SE, with a difference in AIC value of 1.693. The unstandardized coefficients indicated a significant positive relationship between Student Ethnic Background and SE ( $B = 0.11$ ,  $p < .05$ ). The variation in intercepts was still significant after accounting for student-level variables. Therefore, the next step included the addition of Level 2 variables to explain this variation.

## 7.4. Teacher-level predictors of student engagement

After accounting for the role of students' background characteristics at the student level, we added teacher-level variables to the model to explain variance at this level (Model 2). These included teachers' background characteristics: Classroom Ethnic Minority Percentage, Teaching Experience, Gender, and Ethnic Background, their Prejudice Reduction (PR), and Implicit (IA) and Explicit Attitudes (EA).

The results showed no significant changes in the variables at the

student level when compared to Model 1. With regard to the teacher-level variables, SE showed statistically significant associations with teachers' years of Teaching Experience ( $B = 0.01$ ,  $p < .05$ ). This second model (Model 2) substantially improved the prediction of SE, with a difference in AIC value of 3.167.

## 7.5. Teacher-level interactions

In addition, we included interaction terms between Prejudice Reduction and Implicit Attitudes, and Prejudice Reduction and Explicit Attitudes to this model (Model 3). Not restricting the data to fit an only main effects model yielded significant results in the interaction between PR and EA ( $B = 0.11$ ,  $p < .05$ ) as predictors of SE. Introduction of the interaction terms improved the model fit with a difference in AIC value of 2.966.

## 7.6. Random slopes model

Subsequently, we allowed the significant student-level predictor Student Ethnic Background's slope to vary in order to see whether its relationship to SE varies within classrooms. This provided an additional improvement to the model fit, with a difference in AIC value of 1.901 (Model 4). The random slope coefficient of its association with SE was significantly different from zero ( $\sigma^2 = 0.02$ ,  $p < .05$ ). These results indicate that the association of Student Ethnic Background with SE varied across classrooms. Consequently, we added cross-level interactions stepwise to the model. We explored whether Prejudice Reduction, and the association of Prejudice Reduction with Implicit and Explicit Attitudes could explain the variance in the slopes of Student Ethnic Background by calculating cross-level interactions of these variables with Student Ethnic Background. However, no significant cross-level interactions were found. The results of these fixed and random effects of the analyses are shown in Table 2, excluding the cross-level interactions as we did not interpret these interactions further.

In the best fitting model (random intercepts and slopes), our results indicated a statistically significant average positive association between the interaction term between PR and EA, and SE. A simple slope analysis revealed that association between PR and SE was only significant for teachers 1  $SD$  above the mean of EA ( $B = 0.11$ ,  $p < .05$ ). For teachers 1  $SD$  below the mean of EA ( $B = -0.07$ ,  $p > .05$ ), and with a mean level of EA ( $B = 0.02$ ,  $p > .05$ ), the association between PR and SE was not significant (see Fig. 1).

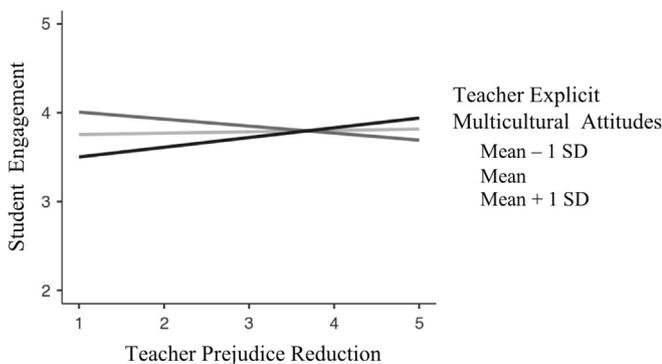
## 8. Discussion

The current study investigated the relationship between

**Table 2**  
Fixed and random estimates for predictors student engagement.

Predictors	Student Engagement			
	M1	M2	M3	M4
	B (SE)	B (SE)	B (SE)	B (SE)
<b>Fixed Parameters</b>				
Intercept	3.85 (0.05) **	3.83 (0.06) **	3.82 (0.06) **	3.80 (0.06) **
<b>Student-level Variables</b>				
Gender	-.02 (0.02)	-.02 (0.02)	-.02 (0.02)	-.02 (0.02)
Age	-.02 (0.02)	-.01 (0.02)	-.01 (0.02)	-.01 (0.02)
Ethnic Background	.11 (0.05) *	.10 (0.05) *	.10 (0.05) *	.12 (0.06) *
<b>Teacher-level Variables</b>				
Class Ethnic Minority Percentage	–	.00 (0.00)	.00 (0.00)	.00 (0.00)
Gender	–	-.00 (0.04)	-.01 (0.04)	-.00 (0.03)
Teaching Experience	–	.01 (0.01) *	.01 (0.01) *	.01 (0.01) *
Ethnic Background	–	-.05 (0.04)	-.05 (0.04)	-.05 (0.04)
Implicit Attitudes	–	-.08 (0.07)	-.07 (0.07)	-.09 (0.06)
Explicit Attitudes	–	-.05 (0.07)	-.07 (0.07)	-.05 (0.06)
Prejudice Reduction	–	.02 (0.03)	.02 (0.03)	.02 (0.03)
<b>Interactions with Prejudice Reduction</b>				
Implicit Attitudes	–	–	.01 (0.07)	.07 (0.06)
Explicit Attitudes	–	–	.21 (0.08) *	.19 (0.07) *
<b>Random Parameters</b>				
Between classes	.02 (0.15) **	.03 (0.16) **	.02 (0.15) **	.00 (0.00) *
Within classes	.18 (0.42) **	.18 (0.42) **	.18 (0.42) **	.18 (0.42) **
$\Delta R^2$	%2	%7	%2	%1

Note. Gender: 1 = boys/male teachers, 2 = girls/female teachers. Ethnic Background: 1 = students/teachers self-identified as Dutch, 2 = students/teachers self-identified as Other than Dutch. M1 = Model 1 with only student level variables, M2 = Model 2, with student and teacher level variables, without interactions terms, M3 = Model 3, with student and teacher level variables, including interactions terms, M4 = Model 4, with both random intercepts and slopes.  $\Delta R^2$  shows difference in explained variance between the subsequent models. \* $p < .05$ . \*\* $p < .01$ .



**Fig. 1.** Simple slopes analysis plot: The relationship between Teacher Prejudice Reduction and Student Engagement at levels of Teacher Explicit Multicultural Attitudes.

teachers' prejudice reduction practices and student engagement. In addition, the moderating role of teachers' explicit attitudes toward multiculturalism, and their implicit attitudes towards an ethnic outgroup in the Netherlands was examined. The results of our multilevel analysis showed that teachers' prejudice reduction practices can have a positive impact on student engagement, but only if these practices are consistent with teachers' explicit multicultural attitudes. The observed relationship was rather weak, but statistically significant. We did not find support for our first hypothesis that the more teachers report practicing prejudice reduction, the higher students' engagement is. As we could not establish this direct connection, we cannot talk about a moderation effect of attitudes on this relationship. Nevertheless, we did find an interaction effect wherein prejudice reduction's relationship to student engagement changed as a function of teachers' explicit attitudes: for the teachers who reported above average levels of positive explicit attitudes, prejudice reduction had a statistically significant positive association with student engagement. Our

second hypothesis, therefore, received only partial confirmation. Contrary to our third hypothesis, however, we did not find any effect of implicit ethnic attitudes on the relationship between teachers' prejudice reduction and student engagement.

Our results partly echo previous findings, indicating that teachers can have a positive influence on student engagement by creating a safe, unprejudiced, environment in which students can feel a sense of belonging, connection, and support for their identity (Carter, 2005). However, our findings also show that engaging in prejudice reduction practices seems to be insufficient in itself. As previously mentioned, many teachers are advocates of equitable educational opportunities but their actual performance in multicultural practices may show shortcomings (Reupert et al., 2010). Our results followed a similar trend: most teachers in our sample reported having positive multicultural attitudes. However, only the proportion of these teachers who reported above-average multicultural sensitivity and awareness seemed to make a positive difference in students' engagement via their prejudice reduction practices.

One explanation for this finding could be that teachers who are very sensitive to and familiar with matters of cultural pluralism provide good examples of multicultural values themselves. They not only talk about multiculturalism as an abstract ideal, but also enact it in the classroom by being aware of issues around diversity and acting on it. One could therefore argue that these teachers actually "walk the talk". Scholars (Kreber, 2010; Palmer, 1998) indeed previously argued that teachers themselves should feel a certain connectivity to topics they discuss and their own values should be in line with the practices they encourage in their students. It is possible that only then, teachers not only know what they want to promote in their students but also know how to promote, as they are more aware of and able to identify potential "hot spots" in their students' experiences and realities within and outside of school. This would mean that they are reflective and knowledgeable enough to lead a meaningful and effective dialogue around diversity. If, however, teachers engage in prejudice

reduction practices due to, for instance, expectations from their schools, or social demands from their colleagues or social networks, these practices might even have a negative effect on their students' engagement (Kreber, 2010).

Previous research may have failed to demonstrate such an interaction effect due to differences between the earlier studies and the current research. Only a few studies included student engagement as one of the outcomes of prejudice reduction (Spencer, 1982, 1983; Steele, 1997). Firstly, however, these studies did not seek to demonstrate the direct relationship between prejudice reduction and student engagement. Secondly, these studies were qualitative in nature, and hence might not have had the same scrutiny as our quantitative approach. Therefore, they might not have captured such an interaction effect as we found in our study, given the found association was significant but small.

As in previous research (Glock & Karbach, 2015; Parks & Kennedy, 2007), our findings showed that teachers had a more positive implicit attitude towards ethnic majority students compared to students with an ethnic minority background. However, these implicit attitudes were not related to teachers' prejudice reduction practices when predicting students' engagement. This finding is consistent with results from several studies where implicit and explicit biases against certain groups were also found to not always predict real-world behavior (e.g., Dovidio et al., 2002; Fazio, Jackson, Dunton, & Williams, 1995). In fact, teachers might be quite aware that their implicit biases may influence their behavior and therefore deliberately try to prevent automatic reactions from playing out. This could be due to either having self-concepts that value equity or simply because society usually disapproves of discriminatory behavior (Park, Glaser, & Knowles, 2008).

Nonetheless, implicit attitudes might play a role in relation to other aspects of diversity, which we did not measure in our study. We have shown in our analyses, for instance, that ethnic background of students was a significant predictor of student engagement, and its effect varied across classrooms. The teacher variables in our study, however, could not explain this variance. Quality of individual student-teacher relationship might be one aspect that could be influenced by implicit attitudes of teachers or students, and could help explaining the variance. Previous research indeed found evidence that teachers have less close and more conflicting bonds with students from some ethnic minority backgrounds (Hamre & Pianta, 2001). These students' engagement is more strongly influenced by the quality of their relationships with the teacher compared to their ethnic majority counterparts (Roorda, Koomen, Spilt, & Oort, 2011). An alternative explanation for not finding any effect of implicit attitudes may be the nature of the test we used to measure these attitudes. Earlier studies have found low correlations and varying effect sizes between the results of implicit attitude measurements, depending on the characteristics of the measures (e.g., Glock & Karbach, 2015) and stimuli (e.g., Robinson, Meier, Zetoch, & McCaul, 2005).

### 8.1. Strengths and limitations

The research presented here goes beyond prior work in several respects. To the best of our knowledge, the current study is the first to examine the direct relationship between prejudice reduction and student engagement, and to include both explicit and implicit attitudes of teachers in relation to multiculturalism. Moreover, the study contributes to the multicultural education literature that focused mostly on the U.S. educational context, used mainly qualitative methods, and had pre-service teachers as participants (Agirdag, Merry, & Van Houtte, 2016).

The current study also has a number of limitations. First, the generalizability of our results is limited due to our sample. Students

with an ethnic minority background are more prevalent in big cities like Amsterdam -where the data were collected. This renders the extent and importance of prejudice reduction practices more pronounced compared to cities where teachers or students are less in contact with people from different backgrounds. Moreover, our participants were from schools that had a collaboration with our research institute. This openness to collaboration might also signal that the teachers are open to self-development and hence may be more aware of their own biases compared to the general teacher population. Second, we measured teachers' self-reported prejudice reduction practices with a rather limited number of items that provided us with an overview of differences that might exist between certain groups of teachers but calls for a more detailed investigation of their practices. Last, on a similar note, we did not have any observations of actual prejudice reduction practices. Although observations in themselves can lead to certain socially desirable behaviors and usually only provide a snapshot of the range of teacher behaviors (Muijs, 2006), they could have provided us with valuable insights beyond what we captured with self-report measures.

Future research can overcome the limitations of our study and build on this research in several ways. Firstly, it would be fruitful to investigate the ways in which teachers who are higher and lower on explicit multicultural attitudes differ in their prejudice reduction practices, since explicit attitudes seem to support or hamper their effectiveness. Classroom observations and student reports can help mapping these practices out in more detail, and may, in addition to dialogue, look into other means of reducing intergroup bias such as promoting contact and cooperation between children from different ethnic backgrounds (Pettigrew & Tropp, 2006). Secondly, the discussed possible role of explicit attitudes in suppressing and altering prejudiced implicit attitudes should be established using a longitudinal design. Lastly, the current study investigated teacher-level variables that might change the effect of prejudice reduction on student engagement. Future research can include student-level variables that might also interact with the examined relationship. For instance, strength of ethnic identification, perceived discrimination, and the number of ethnic outgroup friends have been previously shown to be related to endorsement of multiculturalism and might therefore influence the effect of prejudice reduction (Verkuyten & Martinovic, 2006).

### 8.2. Practical implications and conclusion

To conclude, our findings are encouraging in that teachers' attitudes and intentions seem to matter for their students. Similar to other members of society, teachers hold certain biases. However, being aware of these biases and their possible behavioral manifestations, and being familiar with and sensitive to issues of diversity in the classroom can be supportive of the effectiveness of multicultural practices.

Exposure to diversity might promote prejudice reduction practices and positive attitudes, as our results indicated that teachers who were appointed in classrooms with higher ethnic minority concentration tended to have more positive implicit and explicit attitudes and engaged in more prejudice reduction practices (also see Contact Theory; Allport, 1954).

In addition, professional development programs have been established to increase individuals' awareness of their biases while also informing them that, through careful monitoring of potential biased reactions, they can learn to regulate and inhibit prejudiced responses (Monteith, 1993; Monteith, Devine, & Zuwerink, 1993; as described in; Burns, 2014).

Teachers who have been in the teaching force for a longer period might especially benefit from these programs as our results

indicated that these teachers reported positive attitudes and prejudice reduction practices to a lesser extent compared to teachers who have been teaching for a shorter period of time. Raising awareness of teachers about the availability of support programs, how to access them, and how to best implement these practices in classrooms can be empowering for teachers in managing diversity (Reupert et al., 2010).

### Conflicts of interest

The authors confirm that there are no known conflicts of interest with respect to this research, authorship, and publication.

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### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.tate.2019.102887>.

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