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Associations between teachers' beliefs and their perception of hate speech in school: a study in Germany and Switzerland

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Hate speech is a global issue that is also prevalent among adolescents and requires an educational response. Teachers handle hate speech as part of their professional role. To date, we know little about their beliefs in relation to the early stages of their interventional actions, specifically to their perception of hate speech in school. Thus, this study examined associations between teachers' social dominance orientation, their pluralist attitude, and their hate speech perception in school. A sample of 471 secondary school teachers from 38 schools (Germany: $n = 251$; Switzerland: $n = 220$) participated in a self-report survey from December 2020 to April 2021 ($M_{Age} = 42.8$ years; 57.7% females; 21.0% with migration status). Data from a total of 3,560 students from grades 7–9 (Germany: $n = 1{,}841$; Switzerland: $n = 1{,}719$) were matched with teachers' data to control for students' hate speech perception in school. Fixed effects multilevel regressions were run, including covariates (teachers' age, gender, migration status, students' hate speech perception), teachers' social dominance orientation, pluralist attitude, and their hate speech perception in school. Teachers perceived a higher frequency of offline hate speech than online hate speech. Contrary to the hypotheses, social dominance orientation was positively associated with offline and online hate speech perception. As predicted, teachers' pluralist attitude was positively linked to their off- and online hate speech perception. Further research must now clarify how the investigated beliefs and attitudes and teachers' hate speech perception in school relate to other aspects of their professional competence.

KEYWORDS

hate speech perception, teachers, school, beliefs, social dominance orientation, pluralist attitude

Introduction

Young people witness hate speech globally and in various social contexts, including in schools (e.g., Castellanos et al., 2023; Kansok-Dusche et al., 2023; Lehman, 2020). Hate speech is an intentionally harmful and derogatory expression about people (directly or vicariously) based on assigned group characteristics (e.g., ethnicity, sexual orientation, religious orientation) which potentially causes harm on multiple levels (e.g., individual, communal, societal) (Kansok-Dusche et al., 2023). Hate speech victims experience distress (Krause et al., 2021), lower well-being (Wachs et al., 2022a), avoid school (Lehman, 2020), or even turn into perpetrators themselves (Wachs et al., 2019). Moreover, frequent exposure to hate speech can desensitize adolescents regarding the spread

of derogatory speech and radical political positions in society (Soral et al., 2018). While schools expose students to social conflicts associated with diversity, and potentially hate speech, they also offer opportunities to grow their openness to diversity and other aspects of their social competence (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2005). Therefore, teachers are supposed to care for their students' dignity and integrity by helping them to cope with witness or victim experiences (Arneback, 2014; Legette et al., 2021; United Nations, 2021) or by using pedagogical means in response to students who perpetrate hate speech.

However, qualitative evidence highlights teachers that acknowledge difficulties distinguishing appropriate speech from hate speech (Taylor et al., 2021), or that will not necessarily recognize subtle forms of hate speech or trivialize the phenomenon (Ballaschk et al., 2022). Thus, teachers with difficulties in perceiving hate speech potentially lack the precondition for choosing situationally appropriate interventions and for mitigating the potential harms of hate speech (Latané and Darley, 1970).

Teachers respond to hate speech incidents among students as trained professionals. This means that their ability to perceive hate speech can be framed within teacher competency models (e.g., Baumert and Kunter, 2013). As an aspect of teacher competence, hate speech perception is a prerequisite for teachers' intervention action.

So far, only a small body of hate speech research has examined teachers. If at all, teachers' behavioral responses to hate speech incidents have been examined so far (Bilz et al., 2024; Del Santiago Pino and Goenechea Permisan, 2020; Krause et al., 2023; Strohmeier and Gradinger, 2021). Teachers' hate speech perception and its potential determinants have not yet been studied. Specifically, the role of beliefs and attitudes regarding teachers' perception of hate speech must be better understood because bullying research and professional teacher competency models highlight their importance (e.g., Bilz et al., 2016; Baumert and Kunter, 2013). Being embedded in the socio-ecology of a school (Bronfenbrenner, 1994), teachers' perception of hate speech depends not merely on their individual dispositions, such as beliefs or attitudes, but also on their schools' contextual characteristics. For instance, schools vary regarding the grade of hate speech among their students (Castellanos et al., 2023). Thus, teachers' hate speech perception might also depend on the salience of hate speech in their respective schools. But to date, the few empirical models on teachers' competence in tackling hate speech have not yet taken the prevalence of hate speech in school into account (Bilz et al., 2024; Strohmeier and Gradinger, 2021).

To address current research gaps, the present study adopts a teacher-competency framework (Baumert and Kunter, 2013) and belief-related aspects of social dominance theory (Duckitt and Sibley, 2009) to investigate associations between teachers' beliefs (social dominance orientation), attitudes (pluralist attitude), and their online and offline hate speech perceptions in school, while controlling for contextual characteristics (students' hate speech perception in school). The findings provide important implications for teacher training and professional development of teachers.

A professional competence perspective on the association between teachers' beliefs and attitudes and their hate speech perception in school

Based on the stated hate speech definition guiding the present research, teachers' hate speech perception refers to detecting and recognizing expressions as being "hate speech." Theoretically, teachers' hate speech perception is an aspect of their professional action regarding hate speech, and associated with their professional competence. Generally, teachers' professional competence is a multidimensional construct (Baumert and Kunter, 2013). It consists of cognitive-motivational dispositions (e.g., beliefs, attitudes, motivational orientations, pedagogical knowledge) and is linked with characteristics of teachers' professional practices (e.g., actions related to hate speech among students). Empirically, teachers' beliefs and attitudes are linked to teachers' perception of phenomena of violence at school (e.g., bullying, see Wolgast et al., 2022). Therefore, it is expected that beliefs and attitudes are also likely to be connected to teachers' perception of hate speech. But to date, no research has investigated this association.

Beliefs express the mental acceptance or conviction in an idea's truth, assumed veracity, or actuality (Schwitzgebel, 2021). Within social dominance theory, the dual-process approach on intergroup-related beliefs, attitudes, and prejudice (e.g., Duckitt, 2001; Duckitt and Sibley, 2009) states that beliefs such as social dominance orientation (Pratto et al., 2000; Sidanius et al., 2004) and right-wing authoritarianism (Altemeyer, 1998) influence a person's level of prejudice, as well as their socio-political and intergroup-related actions. Social dominance orientation is a belief in a social hierarchy's value and normative nature and the legitimacy of inequality (Pratto et al., 2000). For instance, persons high on social dominance orientation adhere to a competitive worldview or create and/or rely on social myths that justify and perpetuate social hierarchies as group-based inequalities (Duckitt and Sibley, 2009). The empirical assessment of social dominance orientation generally refers to the veracity of group-based competition and social and economic inequality, as well as the right of powerful groups to dominate weaker ones (Cohrs and Asbrock, 2009; Duckitt and Sibley, 2009). When teachers reported a higher social dominance orientation in recent studies, they also stated a negative attitude regarding including students with disabilities in their classes (Crowson and Brandes, 2014; Navarro-Mateu et al., 2019). To date, teachers' social dominance orientation has not yet been assessed in regard to violence in schools. However, this perspective is important because empirical evidence states that a higher social dominance orientation is related to stronger intergroup prejudice (Sibley and Duckitt, 2008) and less critical evaluations of ingroup offenses (Green et al., 2009). In an experiment, adults with higher social dominance orientation reported weaker support to ban verbal offenses about social groups (Bilewicz et al., 2017). When teachers acknowledge a higher social dominance orientation, then they might potentially perceive group-based derogations as a legitimate practice to keep students of marginalized social groups (e.g., people of color or with migratory backgrounds) in an inferior position at school. In that sense, they might be less aware and more accepting of social practices that enforce or stabilize the disadvantaged resource access of certain groups. Considering these points, teachers with a higher social dominance orientation might perceive lower rates of off- and online hate speech in school, while teachers with a lower social dominance orientation may perceive higher rates.

A pluralist attitude captures an appreciation for compromise, different viewpoints, and the need to listen to dissenting voices, and it contradicts a right-wing populist attitude (Akkerman et al., 2014). Following the dual process approach, teachers with a pluralist attitude

will not adhere to a right-wing authoritarian belief (Duckitt and Sibley, 2009). Instead, they potentially endorse perceptions, goals, and behaviors that are steered toward adaption, flexibility, and change. They might value democratic interactions between social groups, including interactions that potentially challenge the current social order. In contrast, teachers with a low pluralist attitude are possibly more likely to pursue motivational goals of establishing, enforcing, and maintaining security, social order, and stability (Osborne et al., 2023). In that sense, teachers with a low pluralist attitude might evaluate group-based derogations such as hate speech as signals of unproblematic, stable, and hierarchical relationships between social groups (e.g., those constituted by their students). Consequently, they might not pay much attention to derogations or may perceive such expressions as unproblematic or harmless. Thus, we suggest that teachers with a weaker pluralist attitude perceive hate speech in school to a lesser extent, and teachers with a stronger pluralist attitude likely perceive it to a greater extent.

The present study

Based on the aforementioned research, the present study aims to add to the currently very limited knowledge about teachers' competence in handling hate speech by examining direct associations between teachers' social dominance orientation, pluralist attitude, and hate speech perception in school. The research hypotheses are the following:

Hypothesis 1. Teachers' higher social dominance orientation is associated with a lower frequency of hate speech perception in school (offline and online), and

Hypothesis 2. Teachers' lower pluralist attitude is associated with a lower frequency of teachers' hate speech perception in school (offline and online).

Methods

Data collection and sampling procedure

We collected the data through a combined student-teacher survey in Germany and Switzerland. The research was approved by the educational authorities of Germany and Switzerland (e.g., the Ministry of Education, Youth and Sport of the State of Brandenburg; approval number 6/2019), as well as by the Ethics Committees of the University of Potsdam (approval number UP65/2018) and the University of Teachers' Education Bern (approval number 19s 0008 01).

The teacher and student sample in Germany was composed via a cluster-stratified and randomized probability-proportional-to-size scheme (Yates and Grundy, 1953). Initially, all schools were categorized by federal state (Berlin and Brandenburg) and by type of school (e.g., grammar secondary school, non-academic secondary school, secondary school for special education). Then, schools of each school type were randomly selected proportionally to their size. For Switzerland, the acquisition pool of schools was based on a contrastive sampling scheme that consisted of two criteria: the schools' quota of migrants (high/low) and their geography (rural/urban). The Swiss schools were located in four cantons where German was the main language. The principals of 100 schools from the acquisition pool (Germany: $n = 76$; Switzerland: $n = 24$) received phone calls and e-mails to inform them that their schools were randomly selected to participate in this research. Many German school principals refused participation due to the coronavirus pandemic (e.g., because of high regional infection rates or citing a shortage of resources). In total, 1,621 teachers (Germany: $n = 1{,}149$; Switzerland: $n = 472$) were invited to complete the questionnaire. In Germany, teachers and students filled out a paper-pencil survey between October 2020 and June 2021. The survey was provided in German language. To collect student data, a total of 264 classes (Germany: $n = 106$; Switzerland: $n = 158$) received invitations to participate, of which 236 decided to participate (Germany: $n = 98$; Switzerland: $n = 138$). The response rate at the classroom level was 89% across all schools (Germany: 92%; Switzerland: 87%). Of the 5,836 eligible students (Germany: $n = 2{,}495$; Switzerland: $n = 3{,}341$), a total of 3,560 students (Germany: $n = 1{,}841$; Switzerland: $n = 1{,}719$) participated in the study. The overall student response rate was 61% (Germany: 74%; Switzerland: 51%). Written informed consent was requested from the participants themselves and their parents/educators. In Switzerland, teachers and students completed an online version of the questionnaire between December 2020 and April 2021.

Participants

After basic data-cleansing procedures, the initial teacher sample for the data analysis consisted of 486 teachers from 22 German and 20 Swiss schools (individual participation rate: 30.0% in total; Germany: 22.3%, Switzerland: 48.7%). Their participation at the school level ranged from a minimum of one teacher per school to a maximum of 29 teachers per school (Germany: $\text{Min}_{School} = 1$; $\text{Max}_{School} = 29$; Switzerland: $\text{Min}_{School} = 3$; $\text{Max}_{School} = 29$). The multilevel analysis required a minimum number of teachers from each school. Thus, five schools were removed, either due to less than five participating teachers (Germany: $n = 3$ schools; Switzerland: $n = 1$ school) or due to a missing school code (Switzerland: $n = 1$ school). This reduced the teacher sample by 13 individuals (2.7%), resulting in a sample size of 473 teachers (Germany: $n = 253$; Switzerland: $n = 220$) nested in 19 German and 19 Swiss schools. Removing two cases with missing outcome variables (perception of online/offline hate speech) reduced the final sample size to $N = 471$ teachers. From those, a total of 220 teachers (46.7%) worked at 19 schools in Switzerland and 251 (53.8%) at 19 schools in Germany. The teachers were, on average, $M = 42.79$ years old ($SD = 11.37$ years). A majority of 57.7% ($n = 272$) self-reported a female gender, 41.2% ($n = 194$) a male gender, and 0.2% ($n = 1$) a diverse gender. A total of 8% ($n = 4$) of all teachers did not report their gender, and only one teacher omitted their age. Less than a quarter ($n = 99$, 21.0%) reported a migration background. The teachers had worked an average of 15.44 years in their profession ($SD = 11.95$ years). In Germany, the teachers were distributed across different school types (grammar school: $n = 88$, 35.1%; mixed schools with non-academic and partially grammar section: $n = 111$, 44.2%; non-academic secondary school: $n = 38$; 15.1%; school for special education: $n = 14$, 5.6%). In Switzerland, lower-secondary education is organized in separated, cooperative or integrated structural models (Eurydice Network, 2023). They vary in the extent of performance-based

separation of students. Swiss teachers ($n = 220$) were also distributed among these specific school types (separated model: $n = 65$, 29.5%; cooperative model: $n = 86$, 39.1%; integrated model: $n = 69$, 31.4%).

The initial student sample consisted of $N = 3{,}560$ students from the same secondary schools in Germany and Switzerland where the teachers took the survey. After removing 23 students from the three schools with less than five teacher responses and one school with a missing code, the final analytical sample consisted of 3,537 students (Germany: $n = 51.8\%$; Switzerland: $n = 48.2\%$). Participants were in grades 7–9 and in a mixed grade of 7th–9th graders (7th grade: 30.0%; 8th grade: 32.4%; 9th grade: 28.4%; mixed grade: 9.2%). Regarding gender, 46.9% self-identified as male, 51.0% as female, 1.9% as gender diverse, and 0.2% did not indicate their gender. In total, 41.6% had a migration background. Of the students, 31.9% ($n = 1{,}130$) reported living in families of low affluence, 35.8% ($n = 1{,}268$) in families of medium affluence, 31.3% ($n = 1{,}107$) in families of high affluence, and 0.9% ($n = 30$) did not report on their socioeconomic status (SES).

Measures

Teachers' perception of hate speech in school

First, the teachers read a definition of hate speech [see Supplementary material, initially published in Wachs et al. (2022b)]. Teachers then answered two questions about their perception rate of hate speech (online and offline) among students at their school. Therefore, we defined online hate speech in school to be derogatory expressions mediated via digital media (e.g., WhatsApp, Facebook, Instagram, YouTube, or other online platforms or digital media). Offline hate speech in school was defined as hate speech that happened in school without the use of digital media. The teachers each rated, separately for the on- and offline mode, how often they perceived hate speech at school (*"In the last 12 months, how often have you noticed online hate speech at your school?/…., how often have you noticed offline hate speech at your school"*) on a five-point scale (1: *"not at all," 2: "1 or 2 times within the last 12 months," 3: "2 or 3 times a month," 4: "about once a week," 5: "several times a week."*).

Social dominance orientation

Teachers' social dominance orientation was assessed as a self-report measure based on the short social dominance orientation (SDO) scale (Klocke, 2012). The teachers rated their level of agreement with eight statements (e.g., *"It is probably ok that certain groups are at the top of society and others at the bottom"; "Some groups have more chances to get ahead in life, and that's perfectly fine"*) using a five-point scale that ranged from *"absolutely disagree"* (1) to *"absolutely agree"* (5). The scales' internal consistency was good (Cronbach's $\alpha = 0.86$). The item scores were combined means-based.

Pluralist attitude

Teachers' Pluralist Attitude was measured with the Pluralist Attitude Scale by Akkerman et al. (2014) with three items (e.g., "*It is important to take into account the positions of other groups."; "In a democracy, it is necessary to find compromises between different points of view."*). Teachers rated on a five-point scale ranging from *"absolutely disagree"* (1) to *"absolutely agree"* (5). The Cronbach's alpha for this scale was $\alpha = 0.67$. The item scores were combined means-based.

Control variables

Research on teachers' competencies in the context of bullying or social exclusion controls their gender, professional experience, age, and migration background and their schools' country (e.g., Beißert and Bonefeld, 2020; Burger et al., 2015; OECD, 2019). Social dominance theory considers hierarchical stratifications such as gender, age, and country as well. Empirically, adults who self-identify as males often reveal a higher social dominance orientation than adults who self-identify as females, and social dominance orientation was found to increase with age (Zubielevitch et al., 2023). Thus, this study considered teachers' gender, age, and migration background as covariates. Further, there are strong negative associations between a state's constitutional or legislative adherence to egalitarian values (e.g., regarding gender empowerment) and its citizens' average social dominance orientation (Fischer et al., 2012). Based on this, the schools' country was also taken into consideration. The school and country codes were manually assigned to potential respondents. Teachers reported their gender (male, female, diverse), their age (in years), and their professional experience (in years). To capture migration background, teachers stated whether they or one of their parents were born in a country other than Switzerland (for teachers in Swiss schools) or Germany (for teachers in German schools). In our sample, teachers' age correlated highly with their professional experience ($r = 0.86$, $p < 0.001$). Thus, it was sufficient for regression models to keep age and skip professional experience. Applying the argument that the parent's country of birth is a central element in determining migration status (Schenk et al., 2006), a binary index was created with no migration background (neither teacher nor parents born outside Switzerland or Germany) and migration background (teacher or at least one parent born outside). In order to understand whether teachers' perception of hate speech is linked to the extent of hate speech occurring at the schools, students' on- and offline hate speech perception in the last 12 months was assessed. The school-related mean of students' hate speech witnessing was assigned to each teacher of that school. After participants had watched a short video with illustrative pictures and bullet points that defined hate speech for them, short text-based introductions informed them that offline hate speech in school occurs in school without the use of digital media (see Supplementary material). At the same time, online hate speech refers to their experiences with hate speech on the internet and with other digital communication tools (see Castellanos et al., 2023). The students then rated two questions on off- and online hate speech perception (*"In the last 12 months, how often have you witnessed hate speech at your school?"/"…, how often have you witnessed hate speech online?"*) on a five-point scale (1: *"not at all," 2: "1 or 2 times within the last 12 months," 3: "2 or 3 times a month," 4: "about once a week," 5: "several times a week."*).

Data analysis plan

Descriptive and bivariate statistics were performed with SPSS 28 (IBM Corp, 2021). The guidance of Cohen (1988) was used to interpret correlation coefficients and independent t-tests were used for mean comparisons. Some data entries were missing; 0.2% of age entries and 3.2% of social dominance orientation had not been provided by the teachers. Between 0.2% (age) and 3.2% (social dominance orientation) of the data were missing. According to Littles' MCAR Test (Little, 1988), the data were conditionally missing at

random (MAR; $\chi^2 = 86.081$, $df = 47$, $p < 0.001$; e.g., age-related for social dominance orientation and pluralist attitude). The multilevel analysis in Mplus excluded five cases with missing control variables. All regression models were based on the MLR-estimator as it is robust to non-normality violations for social dominance orientation and pluralist attitude (Kolmogorow-Smirnov Goodness of Fit-Test: $D_{SDO} = 0.14$, df = 452, $p < 0.001$; $D_{PLU} = 0.30$, $df = 452$, $p < 0.001$).

To test hypothesis one and two, we calculated two subsequent 2-level- linear regression models with fixed effects in Mplus 8.1 (Muthén and Muthén, 2018). This was done separately for the perception of online and offline hate speech. In these models, teachers (level one/L1) were nested in schools (level two/L2). *A priori* conducted power analysis with G*Power (Faul et al., 2007) revealed that, to detect small to medium correlational effect sizes ($\rho = 0.20$; Cohen, 1988), the present study needed a sample consisting of at least 193 participants ($\alpha = 0.05$, Power = 0.80). Taking the hierarchical structure of the sample (teachers in schools) and the non-response rate into consideration, the resulting minimum sample size is $N = 296$ teachers (Teerenstra et al., 2010). Our data structure met this requirement with 471 teacher units on L1 and 38 school units on L2. At Level 1, social dominance orientation and pluralist attitude were included as predictors while controlling for age, gender, and migration background. At Level 2, the schools' country and the frequency of students' hate speech perception were added as covariates.

In the initial step of our model fitting procedure (Model 0), we ran unconditional random intercept-only models to estimate school-level intraclass correlation coefficients (*ICCs*). In the next step (Model 1), all control variables (gender, age, migration background, schools' country, students' hate speech witnessing) were added. In Model 2, the two predictors (social dominance orientation and pluralist attitude) were additionally included to investigate their direct associations with teachers' hate speech perception in school. Based on a threshold of $|r| > 0.70$ (Dormann et al., 2013), multicollinearity was ruled out between social dominance orientation and pluralist attitude with all other variables. Thus, all predictors were simultaneously added to the direct effects model (Model 2). All metric covariates and predictor variables were grand-mean centered to represent an unambiguous estimate of the effects in the teacher sample regardless of the specific school context (Finch and Bolin, 2017).

At each analytical step, the hypothesized relationships were evaluated for statistical significance, reduction in prediction error (residual variance), and improvement of model fit by relative decreases in three indicators: the Akaike's information criterion (AIC); the Bayesian information criterion (BIC); and the sample-size-adjusted Bayesian information criterion (ABIC).

Results

Table 1 presents the descriptive and bivariate statistics and the results of the unconditional model testing (school-level ICCs). Table 2 shows further multilevel modeling results.

Teachers' hate speech perception in school

Overall, the teachers perceived offline hate speech ($M = 2.58$; $SD = 1.12$) more frequently than online hate speech in school ($M = 1.67$; $SD = 0.76$; $t = -14.59$, $df = 940$, $p < 0.001$). Regarding offline hate speech, the majority (84.9%, $n = 400$) of all teachers ($N = 471$) stated that they perceived it in school at least once in the last 12 months, and a minority (15.1%; $n = 71$) indicated that they did not perceive it at all. For online hate speech, only half (53.1%, $n = 240$) of all teachers indicated that they had perceived it in school, and a total of 46.9% ($n = 231$) declined to have perceived it. The correlation between teachers' offline and online hate speech perception in school was moderate ($r = 0.41$; $p < 0.001$).

Regarding teachers' personal characteristics, only age was associated with teachers' offline hate speech perception in school. No further statistically significant associations were found for the investigated teacher characteristics (Table 1). With increasing age, teachers perceived offline hate speech less frequently in school ($r = -0.16$; $p = 0.001$). Regarding contextual characteristics, small positive correlations appeared between teachers' and students' offline hate speech perception ($r = 0.20$, $p < 0.001$). Students' offline and online hate speech perception correlated to a small extent ($r = 0.15$, $p = 0.001$). Teachers' online hate speech perception in school was somewhat correlated with students' offline hate speech perception, but the degree of significance was marginal ($r = 0.09$, $p = 0.048$). Teachers' and students' online hate speech perception were not correlated ($r = 0.04$, $p = 0.390$).

Teachers' social dominance orientation and pluralist attitude

In general, teachers reported a low social dominance orientation ($M = 1.63$, $SD = 0.58$). Teachers' age was to a small extent positively correlated with social dominance orientation ($r = 0.10$, $p = 0.028$). Male teachers ($M = 1.70$, $SD = 0.64$) reported a slightly higher social dominance orientation than female teachers ($M = 1.56$, $SD = 0.52$; $t = 1.97$, $p < 0.05$).

The teachers reported a strong pluralist attitude ($M = 3.68$, $SD = 0.40$). Their pluralist attitude was not associated with their gender, age, migration background, or country (Table 1). Teachers' pluralist attitudes and social dominance orientation correlated moderately negatively ($r = -0.43$; $p < 0.001$).

Multilevel associations between teachers' social dominance orientation, their pluralist attitude, and teachers' hate speech perception in school

For teachers' offline hate speech perception, the estimated *ICCs* revealed a considerable amount of shared variance between schools (ICC = 0.13; $\sigma = 0.17$). For teachers' online hate speech perception, the shared variance was much smaller (ICC = 0.04; $\sigma = 0.03$). The ICCs for offline hate speech supported the consideration of the school-based clustering of the dependent variables in the hierarchical empirical models. To ensure that the findings for offline and online hate speech are comparable, multilevel analyses were conducted for both online and offline hate speech.

According to Model 1 (adding covariates) for offline hate speech, only teachers' age and students' offline hate speech perception were

TABLE 1 Pearson's bivariate correlations and descriptive statistics ($N = 471$).

	1	2	3	4	5	6	7	8	9
1. Teachers' offline hate speech perception in school	1								
2. Teachers' online hate speech perception in school	**0.41****	1							
3. Age	**−0.16****	−0.06	1						
4. Gender [Females, 1]	0.00	0.00	0.08	1					
5. Migration background [Yes]	0.02	−0.04	−0.06	0.02	1				
6. Social dominance orientation	−0.05	0.00	**0.10***	**−0.10***	−0.08	1			
7. Pluralist attitude	−0.01	−0.01	0.03	0.06	0.01	**−0.43*****	1		
8. Students' offline hate speech perception in school[2]	**0.20*****	**0.09***	**0.14****	−0.01	0.03	0.04	**−0.12***	1	
9. Students' online hate speech perception in school[2]	0.06	0.04	0.02	−0.01	−0.02	−0.03	0.04	**0.15****	1
Mean	2.58	1.67	42.79	–	–	1.63	3.68	2.50	2.62
SD	1.12	0.76	11.37	–	–	0.58	0.40	0.40	0.29
N	471	471	470	–	–	456	464	471	471
ICC (school-level)	**0.13**[a]	0.04[a]	–	–	–	0.004[a]	0.002[a]	**0.08**[b]	0.02[b]

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$. The correlations between continuous variables were computed as Pearson's bivariate correlations; correlations between binary variables and continuous variables were computed as point-biserial correlations. 1: Teachers reporting as diverse were excluded in correlations including gender ($N = 470$). 2: School-wise aggregate (mean). To calculate ICCs, one teacher with diverse gender was excluded. [a]Based on teacher data. [b]Based on student data. ICCs > 0.05 are bold.

significantly associated with teachers' offline hate speech perception in school (Table 2). Compared to the unconditional model, Model 1 led to small proportional reductions in prediction error (residual variance) of 0.03% at the teacher level and 0.13% at the school level. The AIC decreased, while the BIC and ABIC increased to a minor extent. When adding social dominance orientation and pluralist attitude (Model 2), and referencing the resulting indices to Model 1, the proportional reductions in prediction error at the teacher and the school level were again small. The AIC remained almost the same (−0.001%), while the BIC (+0.057%) and ABIC (+0.14%) only slightly increased.

The final Model 2 revealed that a higher rate of students' offline hate speech perception was not linked with a higher rate of teachers' perception of offline hate speech in school (Model 2: $\beta = 0.35$, $SE = 0.18$, $p = 0.053$). Thus, the significant effect of students' hate speech perception found in Model 1 was absent in Model 2, indicating a fragile relevance of the predictor.

To a small extent, teachers' social dominance orientation was positively linked with offline hate speech perception in school ($\beta = 0.08$, $SE = 0.03$, $p = 0.009$). Teachers' pluralist attitude was positively associated with offline hate speech perception ($\beta = 0.04$, $SE = 0.02$, $p = 0.046$), but the effect was very small.

For teachers' online hate speech perception in school, Model 1 revealed teachers' gender as the only significant covariate. Different from the insignificant bivariate correlation (see Table 1), female teachers, compared to male teachers, perceived slightly lower rates of online hate speech in school. Adding the covariates to the model led to a very small proportional reduction in prediction error (residual variance) of 0.01% at the teacher level and 0.08% at the school level. Referenced to the unconditional model, Model 1 showed a minor rise in the AIC (+0.41%), BIC (+2.0%), and ABIC (+0.86%).

In Model 2, social dominance orientation ($\beta = 0.06$; $SE = 0.02$; $p = 0.009$) and a pluralist attitude ($\beta = 0.03$; $SE = 0.02$; $p = 0.036$) were both positively linked with teachers' online hate speech perception in school. The final model, when referenced to Model 1, revealed a minor increase in the fit indices AIC (+0.13%), BIC (+0.87%), and ABIC (+0.31%).

Discussion

This research was rooted in initial empirical findings indicating that adolescents experience hate speech in school, and that teachers sometimes face difficulties in identifying hate speech incidents. Research on psychological predictors of teachers' hate speech perception is scarce and recent (Papcunová et al., 2023). It has not been researched yet whether teachers' beliefs and attitudes, as aspects of their professional competence (Baumert and Kunter, 2013) are linked with this early barrier to their effective response to hate speech incidents. That's why this study applied a teacher competency model (Baumert and Kunter, 2013) and belief-related aspects of social dominance theory (Duckitt and Sibley, 2009) to investigate the associations between teachers' social dominance orientation, their pluralist attitude, and their offline and online hate speech perception in school.

Teachers' hate speech perception in school

Generally, teachers perceived offline hate speech more frequently than online hate speech in school. Adolescents are very often exposed to hate speech in the online domain (Kansok-Dusche et al., 2023). In the current study, teachers' online hate speech perception was not linked with students' online hate speech perception. This finding points out that teachers possibly have limited access to their students' online experiences. Conversely, the similarity between the levels of teachers' and students' offline hate speech perception highlights that teachers' monitoring of students' interactions is likely easier when these interactions take place in the analog world. This corresponds with evidence from bullying, where teachers acknowledged that the most common form of bullying reported to them by their students was traditional bullying, whereas

TABLE 2 Multilevel regression results for the prediction of teachers' off- and online hate speech perception in school by social dominance orientation, and pluralist attitude ($N = 470$).

	Teachers' offline hate speech perception				Teachers' online hate speech perception			
	Intercept	β^a	*SE*	*p*	Intercept	β^a	*SE*	*p*
Model 1: + covariates	**5.83**		**1.26**	**<0.001**	**11.46**		**4.37**	**0.009**
Gender [Females]		−0.03	0.05	0.539		**−0.07**	**0.02**	**0.001**
Age		**−0.16**	**0.06**	**0.011**		−0.06	0.05	0.213
Migration background [Yes]		0.01	0.04	0.776		−0.04	0.04	0.315
Country [Switzerland]		0.06	0.21	0.772		0.15	0.26	0.561
Students' hate speech perception[b]		**0.34**	**0.18**	**0.049**		0.22	0.29	0.45
Model – fit indices[c]								
R^2 (Teachers)[d]	0.97				0.99			
R^2 (School)[d]	0.87				0.92			
AIC	1,423.163 (−0.32%)				1,086.679 (+0.41%)			
BIC	1,456.384 (+1.12%)				1,119.901 (+2.30%)			
ABIC	1,430.994 (+0.02%)				1,094.510 (+0.86%)			
Model 2: + predictors	**5.90**		**1.28**	**<0.001**	**11.677**		**4.397**	**0.008**
Gender [Females]		−0.05	0.06	0.375		**−0.08**	**0.03**	**0.001**
Age		**−0.15**	**0.07**	**0.017**		−0.05	0.05	0.257
Migration background [Yes]		0.02	0.04	0.729		−0.04	0.04	0.348
Country [Switzerland]		0.03	0.21	0.867		0.10	0.27	0.702
Students' hate speech perception[b]		0.35	0.18	0.053		0.23	0.29	0.433
Social dominance orientation		**0.08**	**0.03**	**0.009**		**0.06**	**0.02**	**0.009**
Pluralist attitude		**0.04**	**0.02**	**0.046**		**0.03**	**0.02**	**0.036**
Model – fit indices[c]								
Residual Variance/R^2 (Teachers)[d]	0.96/0.04				0.99/0.01			
Residual Variance/R^2 (School)[d]	0.87/0.13				0.93/0.07			
AIC	1,423.152 (−0.001%)				1,088.140 (+0.13%)			
BIC	1,464.680 (+0.57%)				1,129.668 (+0.87%)			
ABIC	1,432.942 (+0.14%)				1,097.930 (+0.31%)			

Level 1 variables: Offline Hate Speech Perception, Online Hate Speech Perception, Social Dominance Orientation, Pluralist Attitude, gender, age, and migration background. Level 2 variables (in italics): country, students' hate speech perception. Reference category: gender: males; migration background: no; country: Switzerland. SE, standard error; Std. Est., Standardized estimate. [a]Numbers represent the change in hate speech perception in standard deviation units for a standard deviation change in each predictor. [b]Modes of teachers' and students' hate speech perception are the same. [c]Calculation of reductions is based on unrounded data. Fit indices for unconditional model: Offline Hate Speech Perception σ (School) = 0.17; AIC = 1,427.747; BIC = 1,440.205; ABIC = 1,430.684; Online Hate Speech Perception: σ (School) = 0.02; AIC = 1,082.266; BIC = 1,094.724; ABIC = 1,085.202. [d]Unstandardized. Bold if $p < 0.05$.

cyberbullying was the least likely form that was reported to them (Bradshaw et al., 2013). In line with that and supported by the higher school-related ICC for offline hate speech compared to online hate speech, aspects of the school context likely shape teachers' perceptions of offline hate speech more than their perceptions of online hate speech. Hate speech may be extended from offline to online modes, similar to offline bullying being extended to online bullying (Kowalski et al., 2012). When teachers perceive offline hate speech in isolation from online hate speech, they may more frequently respond to offline hate speech than online hate speech incidents. This bears the risk that they may falsely conclude an intervention successful (e.g., reducing hate speech and its causes) despite the continued perception of online hate speech, perpetration, and victimization experienced by their students. Future studies are needed to investigate this point.

Teachers' social dominance orientation and pluralist attitude

In line with findings from early and recent studies (Civitillo et al., 2022; Sidanius et al., 2003), teachers of the investigated Swiss and German schools revealed a low social dominance orientation. This means that teachers did not strongly believe in the legitimacy of dominance-subordinate relations among social groups, manifested as support for overt outgroup derogation and the safeguarding of social hierarchies based on unequal access of social groups to (mainly economic) resources. In line with social dominance theory (Sidanius et al., 2004), older and male teachers manifested a stronger social dominance orientation than younger or female teachers.

Regardless of personal characteristics (e.g., age, gender, migration status), teachers manifested a strong pluralist attitude. They considered

it essential to take into account other groups' positions, and they deemed it necessary to find compromises between different points of view (Akkerman et al., 2014). In line with selected assumptions of the dual process approach (Duckitt and Sibley, 2009) and related empirical evidence (Cohrs and Asbrock, 2009), this cognitive aspect of teachers' professional competence is negatively related to their social dominance orientation.

Associations between teachers' social dominance orientation, their pluralist attitude, and teachers' hate speech perception in school

Taking the results of full multilevel regression models into account (Table 2, Model 2), *Hypothesis 1* could not be confirmed. In contrast to our expectation, teachers' higher social dominance orientation was not associated with a lower frequency but instead with a slightly higher frequency of their hate speech perception in school (offline and online). In that sense, teachers who acknowledged that they more strongly believed in the legitimacy of dominance-subordinate relations among social groups perceived hate speech more frequently. As expected, teachers' lower pluralist attitude was associated with a lower frequency of their hate speech perception in school (offline and online). Hence, *Hypothesis 2* could be confirmed.

In contrast to the theoretical assumptions guiding our hypotheses, social dominance orientation might resemble (rather than differ from) pluralist attitude regarding its connection with teachers' perception of hate speech. Meta-analytic evidence found that people display a selective exposure bias toward information supporting their beliefs and attitudes (Hart et al., 2009). Also, they store and recall such information very well from memory, which indicates a selective attention bias (Eagly et al., 1999). Both cognitions examined in our study express normative positions about relations between social groups. On one hand, a derogation such as hate speech aligns with a higher social dominance orientation via being seen as a legitimate means of expressing and keeping hierarchical group relations. On the other hand, hate speech might align with a higher pluralist attitude as being seen as an illegitimate statement in a legitimate and potentially controversial discourse among members of various social groups. Thus, both cognitions evoke, though on a potentially different legitimacy basis, teachers' selective exposure and attention to group-related information in their social context (e.g., by frequent monitoring of students' group-related interactions or expressions). Regardless of driving the perception of hate speech, social dominance orientation and pluralist attitude might be differentially associated with teachers' evaluations of hate speech incidents (e.g., finding hate speech terrible; forming intentions to stop hate speech, Krause et al., 2023). These preliminary interpretations must be substantiated by future research.

Limitations and implications for future research

This study only examined a few aspects of teachers' professional competence and the school context regarding teachers' hate speech perception in school. More complex models focused on hate speech perception might include additional cognitions (e.g., free speech beliefs and group-specific prejudice, see Roussos and Dovidio, 2018), motivational orientations (e.g., empathy, political interest) as well as other context features (e.g., school rules on derogative language). These aspects might differentially impact the encoding of symbolic verbal and non-verbal expressions (e.g., labeling/not labeling an identical expression as hate speech). Moreover, human values (e.g., security, tolerance), as well as the subjective social distance of a person to the derogated social group, turned out to be linked with online hate speech sensitivity (Papcunová et al., 2023). These factors may be investigated for teachers, too.

We assessed teachers' hate speech perception with a focus on the rate of identifying hate speech at school. A more facetted assessment of this cognitive ability might take into account established methods and instruments from the scientific discourse on audio-visual speech and language processing (e.g., Jurafsky and Martin, 2009). Further, social information processing models (e.g., Lemerise and Arsenio, 2000) could guide research targeting the association between teachers' monitoring strategies prior to their perception of hate speech or the association between teachers' hate speech perception and their handling of hate speech in school (e.g., working with directly involved students; Bilz et al., 2024).

It cannot be ruled out that respondents' refusal to answer certain questions could be linked to the variables analyzed (e.g., social dominance orientation). Some teachers might have understated their social dominance orientation or overstated their pluralist attitude. This could have implications for the analyzed associations. Future studies should, therefore, consider factors (e.g., social desirability) that may be related to non-response. Further, the identified empirical associations are small, and for teachers' pluralist attitudes in particular, they are close to zero. This renders the interpretation of the current results as preliminary. More research will reveal whether the findings can be replicated.

Forthcoming cross-national studies should fully align their sampling strategies. There were small differences in the present study. In Germany, the focus was on ensuring a representative sample considering school-type ratios and school size. In Switzerland, the focus was balancing schools according to their locations' urbanity/rurality and school-related migration quotas.

The cross-sectional data of this study render causality inferences impossible. Also, the use of self-reports bears validity and reliability risks. Regarding validity, teachers' social dominance orientation was potentially prone to social desirability bias and thus was underestimated. Regarding reliability, future studies might improve the internal consistency of the pluralist attitude scale and assess teachers' perception of hate speech and its temporal online-offline pattern more precisely (e.g., by using experience sampling; Zirkel et al., 2015).

Practical implications

This study is a starting point in generating more knowledge about aspects associated with teachers' hate speech perception in school as a necessary condition for addressing it with their students in a pedagogically appropriate way. The preliminary evidence states that beliefs shape teachers' hate speech perception, and, presumably, they also mediate their handling of hate speech. Further research is needed

to understand this better and to derive implications for teacher professionalization measures. Nonetheless, teachers' professional education should address hate speech concerning their positions about intergroup relations (e.g., regarding social hierarchies) and free speech norms. As long as teacher-targeted programs are lacking, evidence-based prevention programs for students [e.g., HateLess by Wachs et al. (2023) and Wachs et al. (2024)] are educative and insightful for teachers.

Conclusion

This research found that teachers' social dominance orientation and their pluralist attitude are weakly positively associated with their hate speech perception in school. Teachers' hate speech perception likely depends on more factors of the school's social ecology and of teachers' professional competence than this study could clarify. For research, more studies related to the role of beliefs and attitudes are required to better understand humans' perception of online and offline hate speech in multiple contexts, including educational settings such as schools. The preliminary findings point to a need within teacher education to address hate speech.

Data availability statement

The datasets presented in this article are not readily available because of confidentiality. Requests to access the datasets should be directed to julia.kansok-dusche@b-tu.de.

Ethics statement

The studies involving humans were approved by the Ethics Committees of the University of Potsdam (UP65/2018) and the University of Teachers' Education Bern (approval number 19s 0008 01). The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

JK-D: Conceptualization, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing. AW: Supervision, Writing – review & editing, Funding acquisition. SF: Supervision, Writing – review & editing. SW: Funding acquisition, Supervision, Writing – review & editing. LB: Conceptualization, Funding acquisition, Supervision, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2024.1432013/full#supplementary-material

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