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ABSTRACT
The willingness to solve conflicts without violence and to strive for a reconciliation of interests is of central significance for the continued existence of democracies. In this paper, we aim to analyze school-related determinants of adolescents' conflict behaviour. Models predicting the conflict styles of 'integrating', 'dominating', 'avoiding' and 'obliging' were developed drawing on different school climate and school development variables. At the individual level, almost all our hypotheses were confirmed. The highest correlations were found between an open classroom climate and the participation in a class council on the one hand, and an integrating conflict style on the other. On the class level however, most of the anticipated effects did not turn out to be significant. We hope that by providing information about different school climate and school development variables' impacts on adolescents' conflict styles, we can contribute to a more effective promotion of constructive conflict behaviour in adolescents.

1. Introduction

Democracy does not only rest on political conditions such as constitutional frameworks which guarantee personal political rights, fair and free elections, and independent courts of law. Political democracy can only function sustainably if it is refl ted in both society and its institutions and in individual behaviour (cf. Himmelmann 2013). Especially, approaches that are based on deliberative theories of democracy stress the utmost importance of the ability to openly discuss and to reconcile different perspectives and positions for living together in democracies on all levels of society, from small-scale institutions like schools to governmental institutions (Dewey 1916; see also Pappas 2012). Accordingly, most current approaches on democratic or civic competence include dimensions such as cooperation skills or conflict resolution skills as essential components (Council of Europe 2016; Torney-Purta et al. 2001).

These requirements are however challenged by a twofold threat. Firstly, studies show that both adolescents (Fend 1971; Krüger et al. 2002) and teachers (Abs 2005) view conflicts as something to be avoided. However, managing conflicts openly and integrating diverging positions are essential democratic requirements (Reinhardt 2007). Secondly, especially among male adolescents, a strong need to absolutely assert their own interests can often be found (Holt and DeVore 2005). Schools play a particularly important role in this regard, as they already formally have the function to organize educational processes that sustain democracy. To this end, democratic principles and competences not only have to be taught. Schools themselves have to guarantee democratic conditions, as the experience with such democratic conditions is regarded as essential for interest and engagement in further institutions and political democracy. Schools, therefore, have to provide settings that allow systematic practising of discursive, deliberative and cooperative behaviours, that is, behaviours that are compatible with democratic
forms of conflict resolution (Edelstein and Fauser 2001).

To allow an effective promotion of constructive, democracy-supportive conflict styles, research is necessary on the impact of school characteristics and different interventions on individuals' conflict styles. However, to our knowledge so far no study has been carried out to address this issue.

1.1. Different styles of handling conflicts

Conflicts in organizations were the starting point for research on conflict styles (e.g. Morris et al. 1999; Rahim 1983, 2000; Rahim, Magner, and Shapiro 2000). A conflict can be defined 'as an interactive process manifested in incompatibility, disagreement, or dissonance within or between social entities (i.e. individual, group, organization, etc.)' (Rahim 2002, 207). In such conflict situations, people show different styles in handling conflicts to different extents. According to the so-called 'dual concern model' (Blake and Mouton 1964; Thomas 1976; see also Rahim 2011), a person's conflict style is based on two underlying dimensions: concern for self and concern for others. While the concern-for-self dimension focuses on the degree to which one is concerned with asserting one's own needs and interests, the concern-for-others dimension focuses on the extent to which one is concerned with satisfying the interests of the opponent. Based on that model, Rahim (2011) describes five different conflict styles in a professional context: a *dominating conflict style* is characterized by a high concern for oneself and a low concern for the other party. Forcing behaviour to win one's objective and consequently ignoring the needs of the other party is regarded as indicative for a dominating conflict style. An *obliging conflict style* maximizes the concern for the other and minimizes the concern for oneself. In other words, it is associated with neglecting one's own interests to satisfy the interest of the other party. An *avoiding style of handling conflicts* is characterized by circumventing conflicts and ignoring problems, that is, neither one's own concern nor the one of the other party is followed. An *integrating*

conflict style is associated with cooperative problem-solving aiming at solutions favourable for both parties as it maximizes both the concern for oneself and for the other party. Finally, a *compromising conflict style* involves both parties' giving up some of their initial demands to reach a mutually acceptable decision (Rahim 2011). Because conflicts frequently occur in human interactions, most organizations have to deal with conflicts and school settings are no exception (Deutsch, Coleman, and Marcus 2006; Garrard and Lipsey 2007). With regard to the initially mentioned personal requirements of a democracy, an integrating conflict style can be regarded as the most democracy-supportive style as it aims both at managing conflicts openly and at balancing all parties' interests. The conflict styles 'avoiding' and 'dominating', in contrast, reflect the aforementioned harmonistic and unilateral tendencies that are often found among adolescents.

However, the promotion of an integrating conflict style is not only democracy-supportive. Moreover, appropriate conflict resolution helps to prevent escalation which might lead to phenomena such as bullying, discrimination and different kinds of risk behaviours (e.g. LaRusso and Selman 2011; Wentzel 1997).

1.2. The influence of schools on adolescents' conflict styles

So far, determinants of different conflict styles have mainly been analyzed in the framework of a business organizational context (see e.g. Rahim 1983). For example, the influence of organizational justice (Rahim 2000) or cultural values (Morris et al. 1999) on conflict styles have been subject to research.

In the context of schools, conflict styles have received little attention in the past and the existing research, to our knowledge, has not looked into how school factors influence students' conflict styles. In the following section, we will first present an overview of research regarding different aspects of the school climate and conflict and violence-related behaviours. Subsequently, we present different school development measures that might promote conflict resolution behaviours conducive to democratic values.

1.2.1. Influence of school climate

Schools as social contexts represent a special case of the general principle that an individual's behaviour and experience are closely related to the features of the group(s) he or she belongs to (e.g. Bronfenbrenner 1976; Cronbach 1976; Marsh et al. 2012). In the framework of this study, we define school climate as shared perceptions of students concerning different aspects of their school environment (cf. Cohen et al. 2009; Van Houtte 2005).

Research on school climate has shown that it can influence students' behaviour (e.g. Battistich et al. 1995; LaRusso and Selman 2011; Wentzel 1998), and it has become a key factor for the prevention of violence in schools (Allen et al. 2008; Brand et al. 2003; Cornell et al. 2009; Daniels et al. 2010). However, some studies have shown that although students might perceive the climate of their school

as positive, violent behaviour was nevertheless prevalent (Nickerson et al. 2014). Nickerson and colleagues suggested that among others, the type of coping strategy used in threatening situations – under which adolescents' conflict management behaviour may be subsumed – could explain such findings.

In the area of civic education, previous studies have found a positive relationship between open, democratic classroom climate and civic competence (Hoskins, Janmaat, and Villalba 2011; Isac et al. 2014; Watermann 2003). A constructive conflict behaviour is regarded as an important constituent of civic competence (Behrmann, Grammes, and Reinhardt 2004). An open, democratic classroom climate promotes both the freedom of expression and the endorsement of diversity of opinions (Abs, Diedrich et al. 2007; see also Torney-Purta et al. 2001). Torney-Purta and Barber (2004), for example, showed that an open climate thus characterized is associated with a higher willingness to integrate ethnic minorities and to generally show civic engagement. Similarly, Lenzi and colleagues (2014) reported democratic school climate to correlate with adolescents' levels of civic responsibility.

Besides an open classroom climate, the quality of interpersonal relationships (i.e. relationships among students and between teachers and students) in schools – as another aspect of the school climate – is an important predictor for the students' behaviour (Isac et al. 2014). For example, Wentzel (1997) found that students' perceptions of teachers as caring are related to the students' pursuit of prosocial and social responsibility goals (see also Wentzel 1998; Wentzel et al. 2010). On the other hand, Krumm and Weiß (2001) list several teacher behaviours that were shown to have a negative impact on students' wellbeing. Given 16 different negative teacher behaviours they studied, the most common ones were 'insulting behaviour' and 'unfairness'. For example, students who do not feel respected and valued by their teachers tend to show behavioural problems and depressive symptoms (Loukas and Robinson 2004; Shochet et al. 2006). Therefore, it can be assumed that the direct interaction between teachers and students – whether it is characterized by an accepting and appreciating attitude (Abs, Diedrich et al. 2007) or rather by insulting behaviour shown by teachers (Krumm 1999) may influence how students perceive themselves and how they deal with potentially conflicting situations.

Apart from aspects of school climate that are directly related to the teachers, another important aspect concerns different forms of violence among students (see Tillmann et al. 1999). The violence students perceive may emanate from the students themselves, they may observe violence among other students or they may be victims of violence. As violence mostly implies the negation of the others' needs or concerns and the overemphasis of one's own concerns, such situations call either for a more pronounced tendency to deal with conflict situations or for avoidant behaviours such as truancy (Meyer-Adams and Conner 2008).

1.2.2. Influence of school development variables

The findings presented in the preceding section show that school climate can be one key to acting on students' conflict behaviour. Regardless of factors related to

school climate, more direct measures are available to promote democracy-supportive conflict styles. For example, subject to the educational development programme 'Learning and Living Democracy', schools from all educational tracks in Germany participated in various school development measures aiming at promoting democratic competencies and developing democratic culture in schools (see Edelstein and Fauser 2001).

In this article, we will concentrate on the effects of the following measures that were implemented as part of that programme: (a) trainings on cooperative learning, (b) trainings on social behaviour and (c) the implementation of class councils.

In trainings on cooperative learning, students learned about the development of group identity, rules for cooperation, and how to reflect and apply the rules as a preparation for cooperatively working and learning in the regular lessons (Druyen and Wichterich 2005). Trainings on social behaviour in groups focused on, for example, promoting a positive understanding of conflicts (i.e. that conflicts can result in positive developments) and a constructive handling of conflicts (Kaletsch 2003) or on communication based on respect and trust in the classroom (cf. Kurz et al. 2006). Class councils were implemented to provide students with the possibility to discuss topics (e.g. regarding the school, the lessons, activities such as a field trip or possible conflicts) with their classmates and teachers (as equal partners) in a democratic and self-responsible way to foster participation and engagement not only in the school context but also beyond (Daublebsky and Lauble 2006). The measures employed in the schools during the programme 'Learning and Living Democracy' were developed and implemented according to common key elements (cf. Edelstein and Fauser 2001). However, the specific measures were not standardized throughout the programme and prioritizations might have differed. All three measures aim at promoting interaction, cooperatively solving problems and at taking the others' perspectives, thus they presumably promote an integrating conflict style and make the use of the other coping strategies less probable.

1.3. Aims of this study

This study examines how both classroom climate on the one hand and students' participation in trainings promoting social interaction and cooperative problem-solving and in class councils on the other hand relate to adolescents' self-reported conflict styles, after controlling for students' background variables – i.e. gender, age, immigrant background and cultural capital. Based on the research presented in the previous section and on our assumptions on the relationship between school climate variables as well as the interventions described above, and students' conflict styles, we formulated the following hypotheses.

In line with the studies reporting a positive connection of open classroom climate with civic engagement, we hypothesize that those young adolescents who report an open classroom climate will be more likely to engage in an integrative

conflict style (Hypothesis 1). We furthermore expect that the direct interaction between teachers and students – whether it is characterized by an accepting and appreciating attitude or rather by insulting behaviour on the part of the teachers – has an influence on how the students deal with conflicts. Specifically, we expect egalitarian accepting teacher behaviour (Abs, Diedrich et al. 2007) to promote an integrating conflict style as the teacher's behaviour might work as a role model (Hypothesis 2). On the other hand, students who perceive their teachers' behaviour as insulting will be more likely to report a more dominating conflict style (Hypothesis 3), and less likely to report an obliging or avoiding conflict style (Hypothesis 4), as the insulting behaviour might engender resistance and therewith the impulse to dominate the situation. In the same vein, we hypothesize that students who perceive higher degrees of violence will more likely report a more dominating or avoiding conflict style (Hypothesis 5). Finally, we expect school development measures targeting competencies such as cooperation and perspective taking (that is trainings addressing group work, social behaviour or the implementation of class councils) to be positively correlated with integrating conflict behaviours. This effect should be most pronounced for the participation in class councils where the integration of different positions in conflict situations is explicitly practised (Hypothesis 6).

2. Method

2.1. Participants

Data were collected in the framework of the evaluation of the pilot programme 'Living and Learning Democracy' (for more details, see Abs, Roczen, and Klieme 2007; Edelstein and Fauser 2001) after the related interventions had taken place (post-only measure). From a total of 150 schools, 65 schools were selected to take part in an evaluation study. In each school, a blind selection of up to four complete classes from grade 8, 9 and 10 took the questionnaires, in total 176 classes. The questionnaires were filled out during lessons by a total number of N = 4112 students. Participants' median age was 15 (M = 15.05, SD = 1.13). The percentage of females was 51%.

2.2. Measures

2.2.1. Adolescents' styles of handling interpersonal conflicts (conflict styles)
For adolescents' *styles of handling interpersonal conflicts*, we included the Adolescents' Styles of Handling Interpersonal Conflict Scales (Abs et al. 2015) originally developed by Rahim (1983).[1] Other than the original instrument, the adaptation for adolescents does not include a scale for the conflict style 'compromising', as this style was statistically not clearly distinguishable from the other four, especially from the conflict style 'integrating' (cf. Bilsky and Wülker 2000). The adolescents' engagement in different styles of handling conflict was verified

with a four-point Likert scale from 1 (I don't agree) to 4 (I fully agree). A dominant style of handling conflicts was measured with five items, e.g. 'I persuade others to get my ideas accepted'. An avoiding style was expressed with six items such as 'I try to keep my opinion to myself'. To assess an obliging style, we employed five items such as 'I give in to the wishes of my schoolmates'. Seven statements like 'I collaborate with my schoolmates to reach decisions we can accept' were used to measure an integrating style of handling conflicts.

2.2.2. School climate variables

Within the concept of *open classroom climate* (see Abs, Diedrich et al. 2007; Torney-Purta et al. 2001), the two above-mentioned facets were measured: *Promotion of freedom of expression* was assessed with three items, for example, 'Students feel free to disagree openly with their teachers about political and social issues during class'. Another three items such as 'Teachers present several sides of an issue when explaining it in class' were employed for *promotion of diversity of opinions*. For the classroom climate statements, a four-point frequency scale ranging from 1 (never) to 4 (often) was employed. The internal consistency of the open classroom climate scale was $\alpha = .70$. For *insulting behaviour of teachers*, we included three items such as 'A student has been unjustly treated by a teacher' (Krumm 1999; see also Abs, Diedrich et al. 2007). Again, a four-point Likert scale ranging from 1 (never) to 4 (often) was employed. The internal consistency of the three-item-scale was $\alpha = .67$.

Social inclusion by the teacher (see Abs, Diedrich et al. 2007) was assessed with items such as 'For our teachers, every student has the same value, irrespective of his/ her cultural background'. Students could indicate their level of agreement with these statements on a four-point scale ranging from 1 (I don't agree) to 4 (I fully agree). Although the scale consisted of only four items, the internal consistency was $\alpha = .94$. To assess *perceived violence*, we included six items (cf. Abs, Diedrich et al. 2007; Tillmann et al. 1999). Based on a four-point frequency scale from 1 (never) to 4 (often), students were asked to answer how often they observe different forms of physical violence. For example, 'A student threatens another student with a weapon'. The internal consistency of the scale was $\alpha = .84$.

2.2.3. School development variables

Finally, concerning different school development measures, we asked the students whether they participated in trainings addressing (1) group work, (2) social learning or (3) whether their class had introduced a class council.

2.2.4. Background variables

We assessed the background variables of *gender, age*, *immigration status*, *cultural capital* and *school track*. We only included one indicator for immigration status, i.e. the dichotomized variable 'language used at home' (exclusively German vs. a single alternative or more than one language; see Abs, Diedrich et al. 2007). As an indicator for cultural capital, we chose the number of books at home (cf. Abs,

Diedrich et al. 2007; Torney-Purta et al. 2001). For the purpose of the analyses presented in this study, we dichotomized the students' answers (up to 100 books vs. more than 100 books). Concerning the school type, we dichotomously assessed whether a student attended grammar school or another school type within the tracked German school system.

2.3. Statistical analyses

Based on multilevel structural equation modelling using the statistical software Mplus (Muthen and Muthen 2009), each style of handling conflicts was predicted with school climate and school development variables, while controlling for the influence of background variables such as gender and age. We used nested data, that is, the participating students were clustered in classes and schools, standard statistical regression procedures would lead to an underestimation of standard errors. As a rule of thumb, if intraclass correlations (that is, the proportion of the variance that is due to class membership) are higher than 0.05, it is recommended to use multilevel analyses or to adjust standard errors correspondingly (Muthen and Satorra 1995). In our sample, the intraclass correlations for the conflict style indicators ranged from .07 for 'participated in trainings addressing social behaviour' to .25 for 'perceived violence', and multilevel modelling was therefore necessary.

3. Results

The descriptive results for the styles-of-conflict scales as well as the school climate scales used in the study are displayed in Table 1. The mean values of the scales range between 2 and 3. Note that a value of 2 corresponds to the answer 'I partly disagree', whereas the value 3 reflects the answer 'I partly agree' on a four-point-scale. Statements expressing an integrating or obliging style of handling interpersonal conflicts are thus rather endorsed by the adolescents in our sample (i.e. 'Integrating': M = 2.68; 'Obliging': M = 2.59) compared to statements expressing a dominating or avoiding style (i.e. 'Dominating': M = 2.3; 'Avoiding': M = 2.4). The internal consistencies varied from α = .65 ('Dominating') to α = .85 ('Integrating'). The mean values of the school climate scales (see Table 1) range between M = 1.03 for the insulting-teacher-behaviour scale and M = 3.35 for the egalitarian-acceptance-by-the-teacher scale. The internal consistencies were α = .67 for 'Insulting teacher behaviour, α = .70 for 'Democratic classroom climate', α = .84 for 'Perceived violence' and α = .94 for 'Egalitarian Acceptance by the teacher' (Table 1). The intercorrelations of the scales are also indicated in Table 1. The two styles-of-conflict scales 'Integrating' and 'Obliging' were with r = .62 particularly highly correlated with each other.

The results of the multilevel structural equation models for the single styles of handling interpersonal confl ts are displayed in Figures 1–4. All models fitted the data well (see Figure 1–4). Among the background variables, on the individual level, only gender significantly predicted a *dominating style of handling*

Table 1. descriptive statistics and bivariate correlations of the styles-of-conflict measures and of the school climate scales.

	M	SD	N items	INT	AVO	DOM	OBL	DCC	PVI	ITB	EAT
Integrating (INT)	2.86	0.83	7	.85	.10**	−.01	**.62***	.28*	−.16*	−.12*	.26*
Avoiding (AVO)	2.40	0.94	6		.76	.04**	.37**	−.01	−.03	−.15*	.11*
Dominating (DOM)	2.30	0.94	5			.65	−.01	−.10*	.22*	.16*	−.11*
Obliging (OBL)	2.59	0.80	5				.73	.19**	−.12*	−.15*	.23*
Democratic classroom climate (DCC)	3.00	0.53	6					.70	−.25*	−.32*	.32*
Perceived violence (PVI)	1.67	0.65	7						.84	.42*	−.23*
Insulting teacher behaviour (ITB)	1.03	0.61	3							.67	−.30*
Egalitarian acceptance by the teacher (EAT)	3.35	0.76	4								.94

notes: to the right of the information on the item number (*N* items), the *figures in the diagonal cells* show internal consistencies. off-diagonal figures represent the Pearson correlations. Bold coefficients indicate large effect sizes (i.e. *r* > .50).
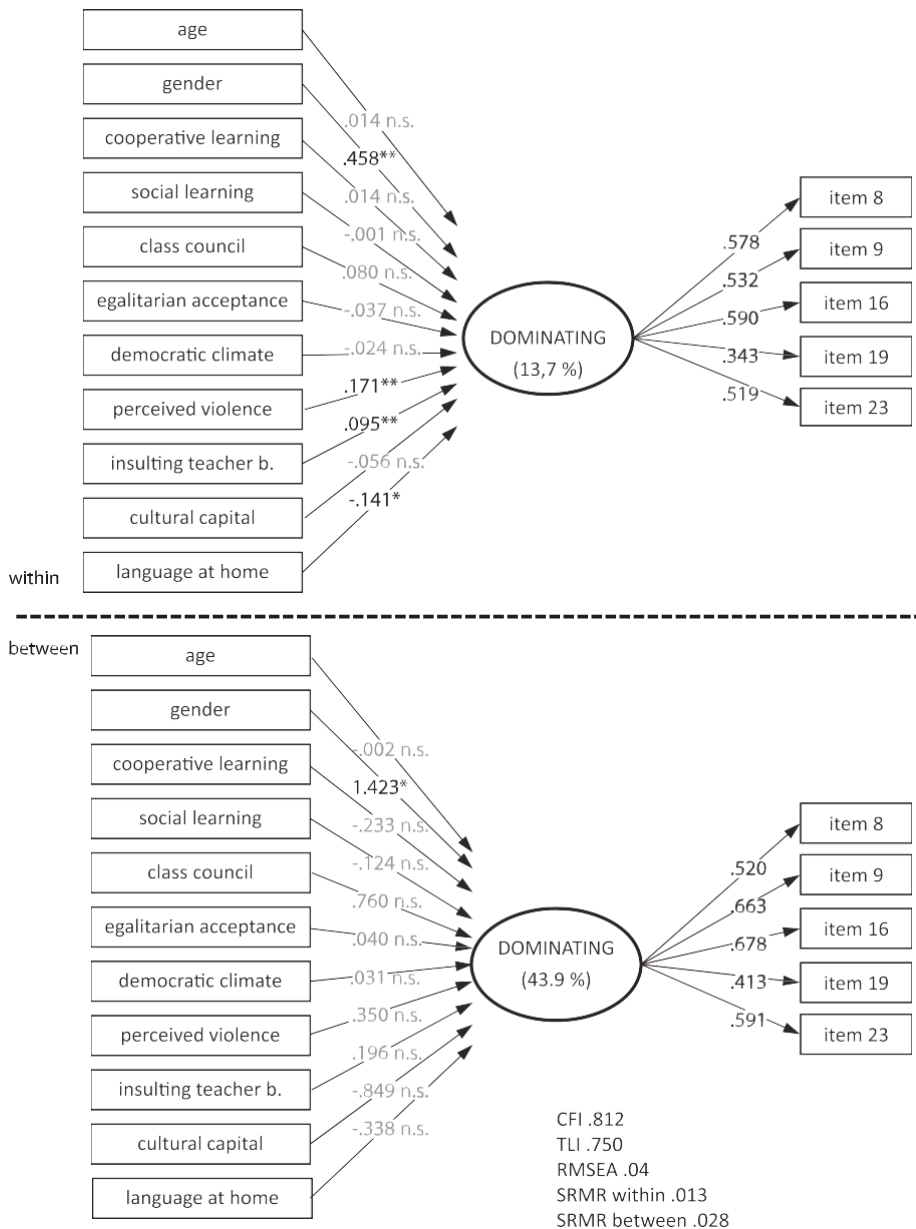*represents *p* < .001

Figure 1. Prediction of the conflict management style 'dominating' by background variables, school climate and school development variables on the individual and on the class level.

notes: Path coefficients for age, egalitarian acceptance, democratic classroom climate, perceived violence and insulting teacher behaviour (continuous variables) are standardized using the variances of the independent variables and the dependent variable for standardization. Path coefficients for gender, participation in trainings on cooperative learning, participation in trainings on social competence and participation in class councils, the families' cultural capital and the language spoken at home (dichotomous variables) are standardized using the variance of the dependent variable for standardization. the coefficients are thus not directly comparable to each other.

conflicts (see Figure 1). Boys are thus more prone to reacting with dominant behaviours in conflict situations than girls (*ß* = .458**). Regarding the school climate variables, perceived violence was the best predictor for a dominant style

($ß$ = .171**). The more violence a student perceived in everyday school life, the more he or she was inclined to display a dominant conflict style. Furthermore, the more the students perceived teachers as insulting, the more they were prone to show a dominant style of handling conflicts. Although this effect was significant, it was only very small ($ß$ = .095**). On the class level, the higher the percentage of boys in a class, the higher was the average level of dominating conflict behaviour ($ß$ = 1.423*).[2]

Concerning an *avoiding style of handling conflicts* (see Figure 2), the background variable of 'cultural capital' showed a significant relationship on the individual level. Students from presumably better educated families in terms of higher cultural capital tended to less often show an avoiding conflict management style ($ß$ = −.176**). Furthermore, older students tended less to exhibit avoiding strategies ($ß$ = −.092**). Looking at the school climate variables, insulting teacher behaviour turned out to be the best predictor for an avoiding conflict style. The more a student perceived his or her teachers' behaviour as insulting, the less he or she tended to show an avoiding conflict style ($ß$ = −.171**). The more a student perceived his or her teachers' behaviour as accepting students in an egalitarian way and the less the classroom climate was described as open for discussion of different positions, the more he or she was likely to display an avoiding style of handling conflicts ($ß$ = .07** and $ß$ = −.072**). While participation in group work trainings was positively related with an avoiding style ($ß$ = .127**), the experience with a class council was negatively related with an avoiding style ($ß$ = −.217**). On the class level, a higher percentage of students from families with more cultural assets and a higher average age were related to a lower average level of avoiding conflict behaviour ($ß$ = −1.226** and $ß$ = −.277**). Furthermore, in classes in which a higher percentage of students reported insulting teacher behaviour, there was a lower level of avoiding conflict style ($ß$ = −.241**).

On the individual level, the background variables of age and gender were a significant predictor for an *obliging style of handling conflicts* (see Figure 3). The older a student was, the less he or she tended to show an obliging conflict style and girls were slightly more prone to exhibit obliging conflict behaviour ($ß$ = −.055** and $ß$ = −.091**). While perceived violence was negatively associated with obliging conflict behaviours ($ß$ = −.059**), egalitarian acceptance by teachers and an open classroom climate were slightly positively related with displaying an obliging conflict style ($ß$ = .174** and $ß$ = .120**). Students who had participated in trainings addressing group work, social learning or in a class council were more prone to show obliging conflict behaviours ($ß$ = .123**, $ß$ = .139** and $ß$ = .183**). On the class level, in classes in which more students attended training addressing social behaviour, a higher average disposition to exhibit obliging conflict behaviours was found ($ß$ = 1.383**). The average level of obliging behaviour was also higher in classes with a high level of egalitarian acceptance and democratic classroom climate ($ß$ = .222** and $ß$ = .187**). In classes in which a higher percentage of students reported they had experienced violence, a lower average use of an obliging

Figure 2. Prediction of the conflict management style 'avoiding' by background variables, school climate and school development variables on the individual and on the class level.

notes: Path coefficients for age, egalitarian acceptance, democratic classroom climate, perceived violence and insulting teacher behaviour (continuous variables) are standardized using the variances of the independent variables and the dependent variable for standardization. Path coefficients for gender, participation in trainings on cooperative learning, participation in trainings on Prediction of the conflict management style 'avoiding' by background variables, school climate and school development variables on the individual and on the class level. in class councils, the families' cultural capital and the language spoken at home (dichotomous variables) are standardized using the variance of the dependent variable for standardization only. the coefficients are thus not directly comparable to each other.
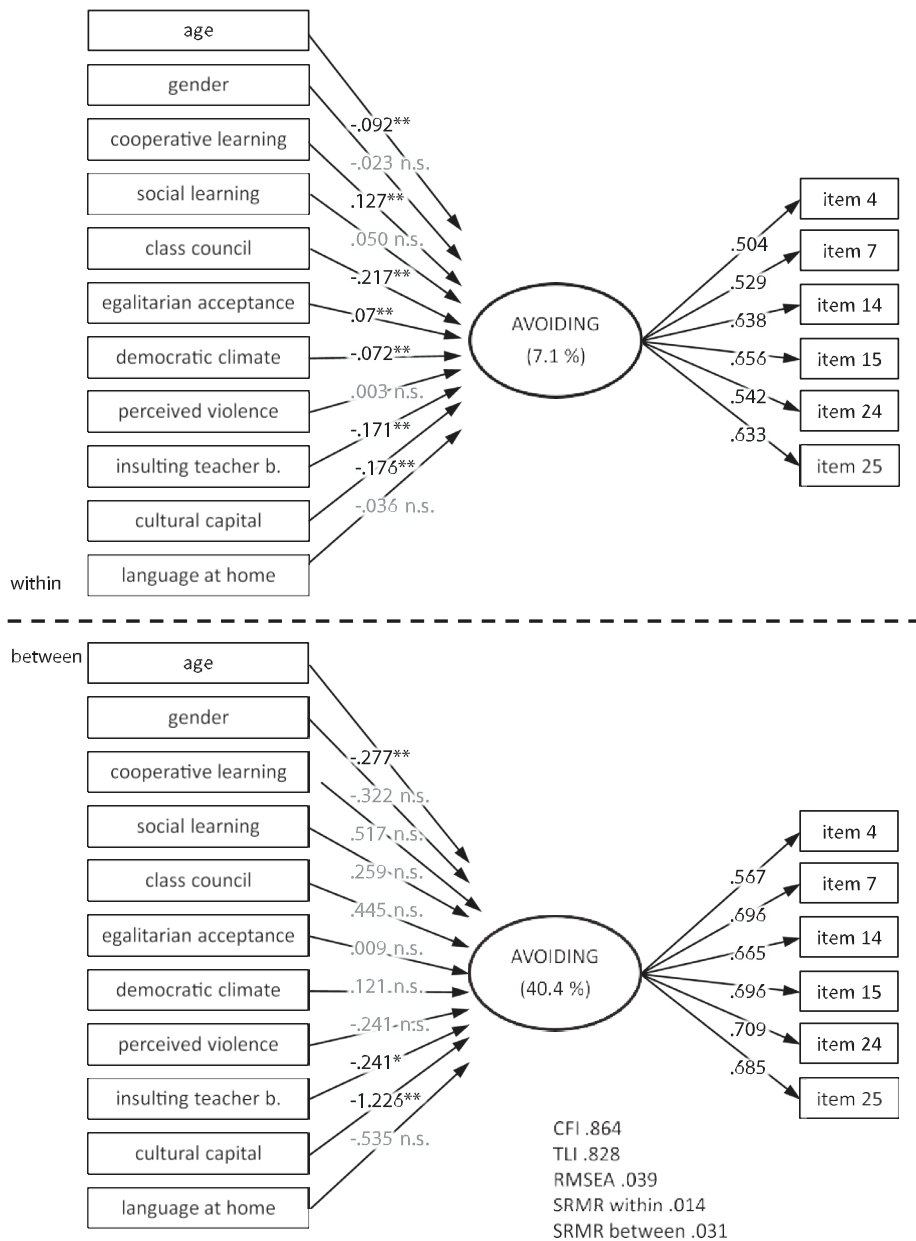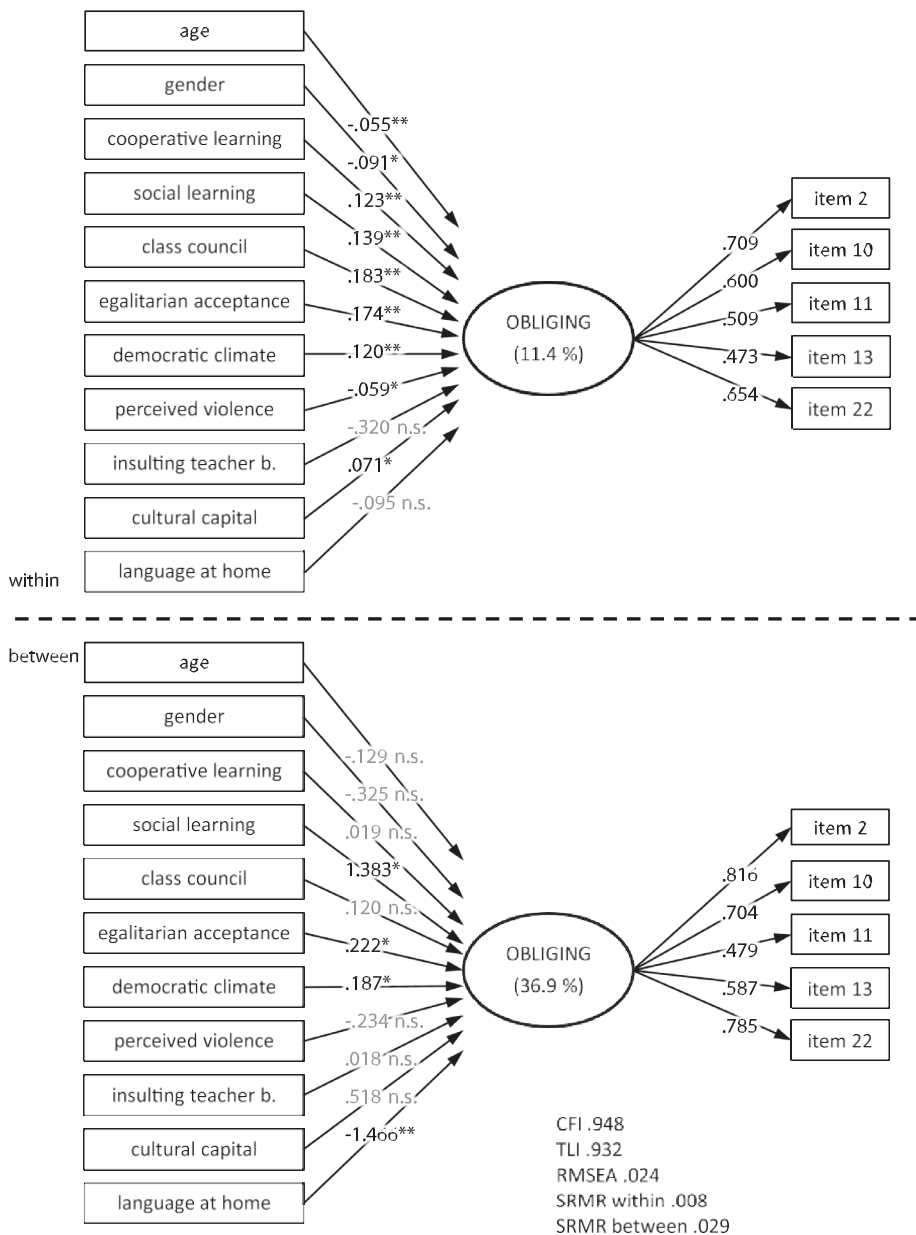
Figure 3. Prediction of the conflict management style 'obliging' by background variables, school climate and school development variables on the individual and on the class level.

notes: Path coefficients for age, egalitarian acceptance, democratic classroom climate, perceived violence and insulting teacher behaviour are standardized using the variances of the independent variables and the dependent variable for standardization. Path coefficients for gender, participation in trainings on cooperative learning, participation in trainings on social competence and participation in class councils, the families' cultural capital and the language spoken at home are standardized using the variance of the dependent variable for standardization only. the coefficients are thus not directly comparable to each other.

Figure 4. Prediction of the conflict management style 'integrating' by background variables, school climate and school development variables on the individual and on the class level.

notes: Path coefficients for age, egalitarian acceptance, democratic classroom climate, perceived violence and insulting teacher behaviour are standardized using the variances of the independent variables and the dependent variable for standardization. Path coefficients for gender, participation in trainings on cooperative learning, participation in trainings on social competence and participation in class councils, the families' cultural capital and the language spoken at home are standardized using the variance of the dependent variable for standardization only. the coefficients are thus not directly comparable to each other.

conflict style was demonstrated (*ß* = −.234**). Furthermore, a higher percentage of students who only spoke German at home was related to a lower average level of obliging conflict behaviour (*ß* = −1.466**).

As regards an *integrating style of handling conflicts* (see Figure 4), among the background variables, gender, cultural capital and immigration status were significant predictors on the individual level. Girls tended more towards an integrating conflict management style than boys ($ß = -.200**$). Students from a more educated background (higher cultural capital) were more prone to show integrating conflict management behaviours, and students who only spoke German at home tended less to an integrating conflict style ($ß = .166**$ and $ß = -.125**$). The more a student perceived his or her teachers' behaviours as accepting them in an egalitarian way and the more the classroom climate was described as open for the discussion of different positions, the more he or she was likely to display an integrating style of handling conflicts ($ß = .198**$ and $ß = .186**$). Students who had participated in trainings addressing group work and social learning and especially those who had participated in a class council tended to report integrating conflict behaviours ($ß = .140**$, $ß = .204**$ and $ß = .257**$). On the class level, the average amount of perceived violence was associated with a reduced average disposition to show integrating conflict management behaviours ($ß = -.322*$), whereas the average perception of egalitarian acceptance and the average assessment of democratic classroom climate were positively linked to the level of an integrating conflict style in that class ($ß = .187**$ and $ß = .298**$). The percentage of students who had participated in a training addressing social behaviour was positively correlated with the average value on the 'Integrating' scale ($ß = .924*$). Furthermore, the higher the proportion of students in a class who only spoke German at home, the lower was the average disposition to show integrating conflict management behaviours ($ß = -1.283**$).

4. Discussion

The goal of our study was to predict four conflict styles based on school climate and school development variables. On the individual level, most of our hypotheses were confirmed. However, the effects were in general only small or at best moderate. In summary, students who participate in school development measures and who perceive their teachers' behaviour as accepting and who describe their classroom climate as open for discussion are more likely to show an integrating style of handling conflicts (cf. Isac et al. 2014; Lenzi et al. 2014; Wentzel et al. 2010).

The more students experience and observe violence in school, the more they tend to show an avoiding or a dominant conflict style. Students are also more inclined to display dominant behaviours in conflicts the more they perceive teachers as insulting. On the class level, the corresponding effects are only partly confirmed. In classes in which a higher percentage of students report their teachers' behaviours as accepting and in which a higher percentage reports an open classroom climate, there is a higher average disposition to show integrating behaviours in conflicts.

We also found some relationships (both on the individual level and on the class level) that we had not anticipated in our hypotheses: Perceived violence is not only positively correlated with dominating and avoiding conflict behaviours, but also with a reduced inclination to show obliging or integrating behaviours in conflicts. Similarly, students who participated in a class council and who perceived their classroom climate as open for discussion were not only (as predicted) more prone to show an integrating conflict style, they were moreover less likely to avoid (open) conflicts.

Only the following results were surprising or even contradictory regarding our hypotheses: Unexpectedly, students who had participated in trainings addressing group work did not only report a higher disposition to show integrating conflict behaviours, they also tended to report more avoiding conflict behaviours. This may be interpreted as follows: participation in group work trainings could enhance the wish to communicate non-violently in conflicts, pertinent to integrating, avoiding and obliging conflict styles alike. Moreover, the trainings may enhance the students' appreciation of efficiency as a main goal of collaboration, and deliberation of conflicts may not always contribute to getting a task done. In contrast to our hypotheses, we found students reporting high levels of accepting teacher behaviour to rather show an obliging conflict style. Correspondingly, in classes in which a higher percentage of students report their teachers' behaviour as accepting, there is a higher average disposition to demonstrate an obliging conflict style. One could assume that students who essentially feel they are accepted as a person do not mind being obliging in individual situations. An alternative explanation could be a remedial effect, that is, a teacher who perceives students' subordinate behaviour might increasingly emphasize that he or she will accept each student indiscriminately.

We included the background variables primarily to control for their effects and, therefore, did not formulate hypotheses. However, at this point, we would like to address some interesting findings concerning the impact of gender, age, immigration status and cultural assets (indicating parental educational levels) on students' conflict styles. Our model revealed that – on the individual level – boys tended more towards a dominant and girls more to an integrating conflict style, corresponding to existing research findings (e.g. Ayas et al. 2010). Students with an immigrant background tended more towards exhibiting an integrating conflict style, which is also found on the class level: in classes with a higher proportion of students with an immigrant background, on average, more integrating behaviours were displayed in conflict situations. Taking into account both one's own concerns and those of others has a socio-motivational and a cognitive component, namely the ability to consider various perspectives (see Davis 1983). The use of more than one language in the home and school context may enhance the need and consequently on average the capacity to consider different perspectives (Fan et al. 2015).

Furthermore, students whose parents possessed more cultural capital showed less avoiding conflict behaviours. Correspondingly, classes with a higher proportion of students from such families on average revealed a lower disposition to show avoiding behaviours in conflict situations. This corresponds with previous findings: children with lower socio-economic status have lower language and communication abilities (Hartas 2011; Hwa-Froelich 2014). Their parents' cultural capital (see Bourdieu 1983; in this study indicated by the number of books at home) could be a central explanation for that relationship. The family's cultural capital might be a resource for students which helps them to develop confidence in all kinds of communication. Consequently, avoidance should less often be regarded as a promising option when facing conflicts.

Before discussing the practical implications of our findings, we turn to a few aspects that may limit their interpretation. Firstly, in our study, we only dealt with cross-sectional data. That is, although it seems plausible that the different school climate and school development variables have *an impact on* the conflict styles (rather than conversely), the data cannot prove causal relationships. Instead, our data only provide information about the predictive value of variables in a given context. A limitation might thus particularly concern the significance of findings on the influence of school development measures. Secondly, the school development measures employed in the participating schools were not standardized making it difficult to interpret our results as we are not able to relate found correlations with conflict styles to particular characteristics of a measure. Thirdly, we only used very few indicators for the students' socio-economic status, namely the language spoken at home as an indicator for immigration background and the number of books as an indicator for the families' cultural capital. We used the latter also as a distal indicator for the parents' educational level. However, information on parental education and occupation would have been more precise indicators for that purpose. Furthermore, when this study was undertaken, digital reading was less of an issue than it is today. The number of books as an indicator for cultural capital may – as a matter of course – lose validity.

For future research, it would be preferable to analyze the impact of different standardized interventions on conflict management styles in a (semi-)experimental pre–post design to build a more profound basis for policy recommendations and further improvement as well as dissemination of specific trainings promoting democracy-supportive behaviours.

Our findings provide information that might be usefully applied in school development activities. We found an open classroom climate and egalitarian acceptance by the teacher to be predictors for an integrating conflict style. Basing teacher training on these contents could therefore help to promote this democracy-supportive conflict style. Furthermore, measures such as initiating a class council or providing trainings addressing social learning and group work should be more comprehensively implemented in schools to foster constructive conflict behaviour.

The found effects are only small. However, we should bear in mind that the interventions were only short-term measures and the concrete way of implementation varied. Therefore, we can assume that a systematic long-term intervention would lead to stronger effects.

To conclude, in this paper we provided information on the impact of different school climate and school development variables on adolescents' conflict styles which will hopefully contribute to a more effective promotion of constructive conflict behaviour in adolescents.

Notes

1. In another paper, we explore in greater depth the three-dimensional option of modelling conflict styles (see Filsecker, Abs, and Roczen 2017). In this paper, however, we decided to follow closer Rahim's theoretical model for which there are empirical arguments, too (see Abs et al. 2015).
2. Please note that continuous variables are standardized using the variances of the independent and the dependent variables whereas dichotomous variables are standardized using the variance of the dependent variables only. The coefficients are thus not directly comparable to each other.

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References

Abs, H. J. 2005. "Metaphern der Demokratie. [Metaphors of Democracy]." In *Demokratiekompetenz. Beiträge aus Politikwissenschaft, Pädagogik und Politischer Bildung*, edited by G. Himmelmann and D. Lange, 114–128. Wiesbaden: VS-Verlag.

Abs, H. J., M. Diedrich, H. Sickmann, and E. Klieme. 2007. *Evaluation im BLK-Modellprogramm "Demokratie lernen und leben". Skalen zur Befragung von Schüler/-innen, Lehrer/-innen und Schulleitungen: Dokumentation der Erhebungsinstrumente 2006* [Evaluation of the BLK Pilot Programme "Learning and Living Democracy". Student-, Teacher-, and School Administrator Scales: Documentation of Instruments 2006]. Frankfurt am Main: Deutsches Institut für Internationale Pädagogische Forschung.

Abs, H. J., N. Roczen, S. Bender, and M. Filsecker. 2015. "Entwicklung eines Instruments zur Erfassung von Konfliktstilen bei Schüler/-innen [Development of an Instrument for the Measurement of Students' Conflict Styles]." Paper presented at the Third Conference of the Society for Empirical Educational Research (3. Tagung der Gesellschaft für Empirische Bildungsforschung - "Heterogenität.Wert.Schätzen"), Bochum, March 11–13.

Abs, H. J., N. Roczen, and E. Klieme 2007. *Abschlussbericht zur Evaluation des BLK-Programms "Demokratie lernen und leben."* [Final Report on the Evaluation of the BLK Programme "Learning and Living Democracy"]. Frankfurt am Main: Deutsches Institut für Internationale Pädagogische Forschung.

Allen, K., D. Cornell, E. Lorek, and P. Sheras. 2008. "Response of School Personnel to Student Threat Assessment Training." *School Effectiveness and School Improvement* 19 (3): 319–332.

Ayas, T., M. Deniz, M. Kagan, and M. Kenc. 2010. "An Investigation of Conflict Resolution Strategies of Adolescents." *Procedia - Social and Behavioral Sciences* 2: 3545–3551.

Battistich, V., D. Solomon, D. Kim, M. Watson, and E. Schaps. 1995. "Schools as Communities, Poverty Levels of Student Populations, and Students' Attitudes, Motives, and Performance: A Multilevel Analysis." *American Educational Research Journal* 32 (3): 627–658.

Behrmann, G. C., T. Grammes, and S. Reinhardt. 2004. "Politik: Kerncurriculum Sozialwissenschaften in der gymnasialen Oberstufe [Politics: Core Curriculum for Social Sciences at Upper Secondary Schools]." In *Kerncurriculum Oberstufe II: Biologie, Chemie, Physik – Geschichte, Politik*, edited by H. E. Tenorth, 322–406. Weinheim: Beltz.

Bilsky, W., and A. Wülker. 2000. *Konfliktstile: Adaptation und Erprobung des Rahim Organizational Conflict Inventory (ROCI-II)* [Conflict Styles: Adaptation and Empirical Test of the Rahim Organizational Conflict Inventory (ROCI-II)]. Berichte aus dem Psychologischen Institut IV, Münster: Westfälische Wilhelms-Universität.

Blake, R. R., and J. S. Mouton. 1964. *The managerial grid*. Houston, TX: Gulf Publishing. Bourdieu, P. 1983. "Ökonomisches Kapital, kulturelles Kapital, soziales Kapital [Economic Capital, Cultural Capital, and Social Capital]." In *Soziale Ungleichheiten*, edited by R. Kreckel, 183–198. Göttingen: Schwartz.

Brand, S., R. Felner, M. Shim, A. Seitsinger, and T. Dumas. 2003. "Middle School Improvement and Reform: Development and Validation of School-level Assessment of Climate, Cultural Pluralism, and School Safety." *Journal of Educational Psychology* 95: 570–588.

Bronfenbrenner, U. 1976. "The Experimental Ecology Of Education." *Educational Researcher* 5: 5–15.

Cohen, J., L. McCabe, N. M. Michelli, and T. Pickeral. 2009. "School Climate: Research, Policy, Teacher Education and Practice." *Teachers College Record* 111 (1): 180–213.

Cornell, D., P. Sheras, A. Gregory, and X. Fan. 2009. "A retrospective Study of School Safety Conditions in High Schools using the Virginia Threat Assessment Guidelines versus Alternative Approaches." *School Psychology Quarterly* 24: 119–129.

Council of Europe. 2016. *Competences for Democratic Culture. Living Together as Equals in Culturally Diverse Democratic Societies*. Strasbourg: Council of Europe.

Cronbach, L. J. 1976. *Research on Classrooms and Schools: Formulations of Questions, Design, and Analysis*. Stanford, CA: Stanford Evaluation Consortium.

Daniels, J. A., A. Volungis, E. Pshenishny, P. Gandhi, A. Winkler, and M. C. Bradley. 2010. "A Qualitative Investigation of Averted School Rampages." *The Counseling Psychologist* 38: 69–95.

Daublebsky, B., and S. Lauble. 2006. *Der Klassenrat als Mittel demokratischer Schulentwicklung: Eine Handreichung für die Praxis* [Class Council as an Instrument for the Democratic Development of Schools: A Practical Handout]. Berlin: BLK.

Davis, M. H. 1983. "Measuring Individual Differences in Empathy: Evidence for a Multidimensional Approach." *Journal of Personality and Social Psychology* 44 (1): 113.

Deutsch, M., P. T. Coleman, and E. C. Marcus. 2006. *The Handbook of Conflict-resolution: Theory and Practice*. San Francisco, CA: Jossey-Bass.

Dewey, J. 1916. *Democracy and education: An introduction to the philosophy of education*. New York: Macmillan.

Druyen, C., and H. Wichterich. 2005. *Demokratiebaustein: Kooperatives Lernen für die Demokratie* [Element of Democracy: Cooperative Learning for Democracy]. Berlin: BLK.

Edelstein, W., and P. Fauser. 2001. *"Demokratie lernen und leben": Gutachten für ein Modelversuchsprogramm der BLK* ["Learning and Living Democracy": A Pilot Programme of the BLK]. Bonn: Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung.

Fan, S. P., Z. Liberman, B. Keysar, and K. D. Kinzler. 2015. "The Exposure Advantage. Early Exposure to a Multilingual Environment Promotes Effective Communication." *Psychological Science* 26 (7): 1090–1097.

Fend, H. 1971. *Konformität und Selbstbestimmung: Mündigkeit und Leistungsmotivation in sozialisationstheoretischer Sicht* [Compliance and Self-determination: Maturity and Achievement Motivation from a Socio-theoretical Perspective]. Weinheim: Beltz.

Filsecker, M., H. J. Abs, and N. Roczen. 2017. "The Structure of Conflict Styles in Adolescents: Psychometric Properties of the Adapted Rahim Organizational Conflict Style Inventory ROCI-II." Manuscript submitted for publication.

Garrard, W., and M. Lipsey. 2007. "Conflict Resolution Education and Antisocial Behaviour in U.S. Schools: A Meta-analysis." *Conflict Resolution Quarterly* 25 (1): 9–38.

Hartas, D. 2011. "Families' Social Backgrounds Matter: Socio-economic Factors, Home Learning and Young Children's Language, Literacy and Social Outcomes." *British Educational Research Journal* 37 (6): 893–914.

Himmelmann, G. 2013. "Competences for Teaching, Learning and Living Democratic Citizenship." In *Civic Education and Competences for Engaging Citizens in Democracies*, edited by Murray Print and Dirk Lange, 3–7. Rotterdam: Sense Publishers.

Holt, J. L., and C. J. DeVore. 2005. "Culture, Gender, Organizational Role, and Styles of Conflict Resolution: A Meta-analysis." *International Journal of Intercultural Relations* 29 (2): 165–196.

Hoskins, B., J. G. Janmaat, and E. Villalba. 2011. "Learning Citizenship through Social Participation Outside and Inside School: An International Multilevel Study of Young People's Learning of Citizenship." *British Educational Research Journal* 38 (3): 419–446.

Hwa-Froelich, D. A. 2014. *Social Communication Development and Disorders*. New York: Psychology Press.

Isac, M., R. Maslowski, B. Creemers, and M. van der Werf. 2014. "The Contribution of Schooling to Secondary-school Students' Citizenship Outcomes Across Countries." *School Effectiveness and School Improvement* 25 (1): 29–63.

Kaletsch, C. 2003. *Konstruktive Konfliktkultur: Förderprogramm für die Klassen 5 und 6* [Constructive Conflict Culture: Intervention Programme for School Years 5 and 6]. Weinheim: Beltz.

Krüger, H. H., S. Reinhardt, C. Kötters-König, N. Pfaff, R. Schmidt, A. Krappidel, and F. Tillmann. 2002. *Jugend und Demokratie - Politische Bildung auf dem Prüfstand: Eine quantitative und qualitative Studie aus Sachsen-Anhalt* [Youth and Democracy – Political Education Put to Test: A Quantitative and Qualitative Survey from Saxony-Anhalt]. Opladen: Leske and Budirch.

Krumm, V. 1999. "Machtmißbrauch von Lehrern: Ein Tabu im Diskurs über Gewalt in der Schule [Teachers' Abuse of Power: A Taboo in the Discourse on Violence in Schools]." *Journal für Schulentwicklung* 3: 38–52.

Krumm, V., and S. Weiß. 2001. "Was Lehrer Schülern antun - Ein Tabu in der Forschung über 'Gewalt in der Schule'" [What Teachers are Doing to Students – A Taboo in Research On 'Violence at School'.] *Pädagogisches Handeln* 3 (4): 121–130.

Kurz, H., E. Kantrowitz, M. Jokubeit, and T. Lorenz. 2006. *Praxisbaustein: Warum verstehen wir uns nicht? Ein besseres Miteinander durch die Erarbeitung von Kommunikationsregeln* [Module: Why don't We Understand Each Other? Community Enhancement by Working Out Rules for Communication]. Berlin: BLK.

LaRusso, M., and R. Selman. 2011. "Early Adolescent Health Risk Behaviours, Conflict Resolution Strategies and School Climate." *Journal of Applied Developmental Psychology* 32: 354–362.

Lenzi, M., A. Vieno, J. Sharkey, A. Mayworm, L. Scacchi, M. Pastore, and M. Santinello. 2014. "How School can Teach Civic Engagement Besides Civic Education: The Role of Democratic School Climate." *American Journal of Community Psychology* 54 (3–4): 251–261.

Loukas, A., and S. Robinson. 2004. "Examining the Moderating Role of Perceived School Climate in Early Adolescent Adjustment." *Journal of Research on Adolescence* 14 (2): 209–233.

Marsh, H., O. Lüdtke, B. Nagengast, U. Trautwein, A. Morin, A. Abduljabbar, and O. Köller. 2012. "Classroom Climate and Contextual Effects: Conceptual and Methodological Issues in the Evaluation of Group-level Effects." *Educational Psychologist* 47 (2): 106–124.

Meyer-Adams, N., and B. T. Conner. 2008. "School Violence: Bullying Behaviours and the Psychosocial School Environment in Middle Schools." *Children and Schools* 30 (4): 211–221.

Morris, M. W., K. Y. Williams, K. Leung, D. Bhatnagar, J. F. Li, M. Kondo, J. L. Luo, and J. C. Hu. 1999. "Culture, Conflict Management Style, and Underlying Values: Accounting for Cross-national Differences in Styles of Handling Conflicts among US, Chinese, Indian and Filipino Managers." *Journal of International Business Studies* 29: 729–748.

Muthen, L. K., and B. O. Muthen. 2009. *Mplus Statistical Modeling Software (Version 5.21).* Los Angeles, CA: Author.

Muthen, B., and A. Satorra. 1995. "Complex Sample Data in Structural Equation Modeling." *Sociological Methodology* 25: 267–316.

Nickerson, A., D. Singleton, M. Schnurr, and M. Collen. 2014. "Perceptions of School Climate as a Function of Bullying Involvement." *Journal of Applied School Psychology* 30 (2): 157–181.

Pappas, G. F. 2012. "What would John Dewey say about Deliberative Democracy and Democratic Experimentalism?" *Contemporary Pragmatism* 9 (2): 57–74.

Rahim, M. A. 1983. "A Measure of Styles of Handling Interpersonal Conflict." *Academy of Management Journal* 26: 368–376.

Rahim, M. A. 2000. "Empirical Studies on Managing Conflict." *International Journal of Conflict Management* 11: 5–8.

Rahim, M. A. 2002. "Toward a Theory of Managing Organizational Conflict." *International Journal of Conflict Management* 13 (3): 206–235.

Rahim, M. A. 2011. *Managing Conflict in Organizations*. 4th ed. New Brunswick, NJ: Transaction.

Rahim, M. A., N. R. Magner, and D. L. Shapiro. 2000. "Do Justice Perceptions Influence Styles of Handling Conflict with Supervisor? What Justice Perceptions, Precisely?" *International Journal of Conflict Management* 11 (1): 9–31.

Reinhardt, S. 2007. "Demokratieverständnis: Konfliktfähigkeit als Hauptproblem [Understanding Democracy: Conflict-related Ability as a Major Issue]." In *Vom Gelingen und Scheitern Politischer Bildung. Studien und Entwürfe*, edited by H. Biedermann, F. Oser, and C. Quesel, 565–574. Zürich: Rüegger.

Shochet, I., M. Dadds, D. Ham, and R. Montague. 2006. "School Connectedness Is an Underemphasized Parameter in Adolescent Mental Health: Results of a Community Prediction Study." *Journal of Clinical Child and Adolescent Psychology* 35 (2): 170–179.

Thomas, K. W. 1976. "Conflict and Conflict Management." In *Handbook of Industrial and Organizational Psychology*, edited by M. Dunnette, 889–935. Chicago, IL: Rand McNally.

Tillmann, K. J., B. Holler-Nowitzki, H. G. Holtappels, U. Meier, and K. Popp. 1999. *Schülergewalt als Schulproblem* [Students' Violence as a School Problem]. Weinheim: Juventa.

Torney-Purta, J., and C. Barber. 2004. *Democratic School Engagement and Civic Participation among European Adolescents: Analysis of Data from the IEA Civic Education Study. Education for Democratic Citizenship 2001–2004.* Strasbourg: Council of Europe.

Torney-Purta, J., R. Lehmann, H. Oswald, and W. Schultz. 2001. *Citizenship and Education in Twenty-eight Countries*. Amsterdam: International Association for the Evaluation of Educational Achievement IEA.

Van Houtte, M. 2005. "Climate or Culture? A Plea for Conceptual Clarity in School Effectiveness Research." *School Effectiveness and School Improvement* 16: 71–89.

Watermann, R. 2003. "Diskursive Unterrichtsgestaltung und multiple Zielerreichung im politisch bildenden Unterricht [Discursive Teaching Structure and Multiple Achievement of Goals in Political Education]." *Zeitschrift für Soziologie der Erziehung und Sozialisation* 4: 356–370.

Wentzel, K. 1997. "Student Motivation in Middle School: The Role of Perceived Pedagogical Caring." *Journal of Educational Psychology* 89: 411–419.

Wentzel, K. 1998. "Social Relationships and Motivation in Middle School: The Role of Parents, Teachers and Peers." *Journal of Educational Psychology* 90 (2): 202–209.

Wentzel, K., A. Battle, L. Shannon, and L. Looney. 2010. "Social Supports from Teachers and Peers as Predictors of Academic and Social Motivation." *Contemporary Educational Psychology* 35: 193–202.