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The Structure of Conflict Styles in Adolescents: Psychometric Properties of the Adapted Rahim Organizational Conflict Style Inventory ROCI-II Michael Filsecker[1], Hermman Josef Abs[2], Nina Roczen[3]

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Blake and Mouton's (1964) dual concern theory proposed that an individual can have two main motivations or concerns with regard to interpersonal conflict: to attain his or her goals (i.e., concern for the self) or to preserve interpersonal relationships (i.e., concern for others). These two motivations were the basis for Blake and Mouton's five-dimension *managerial grid*, which is used to classify modes (*styles*) of handling conflict. The Rahim Organizational Conflict Inventory (ROCI- II) (Rahim, 1983) was based on this grid and was developed with the aim of constructing factorially independent subscales for assessing a respondent's use of the five methods of handling interpersonal conflict: dominating, avoiding, obliging, compromising and integrating. Although the ROCI-II has been used to assess the five dimensions of Blake and Mouton's managerial grid, studies in which its latent structure is examined have produced mixed results.

Rahim (1983) subjected a 35-item version of the scale to principal factor analysis with varimax rotation and obtained eight factors with eigenvalues greater than one. Theoretical considerations led Rahim to opt for a five-factor solution and a 28-item scale (dominating = five items; avoiding = six items; obliging = six items; compromising = four items; integrating = seven items), after removing items with loadings lower than .4. A few years later Weider-Hatfield (1988) reviewed the various attempts to replicate the factorial structure obtained by Rahim. Some studies have corroborated the five-factor solution (e.g. Bowles, 2009; Hammock, Richardson, Pilkington, & Utley, 1990) whereas others have proposed a three-factor solution (cf. Eschelman, 1982; Young, 1985; Rahim & Buntzman, 1987; Weider-Hatfield & Hatfield, 1987) with the three factors being Dominating (as unique factor without crossloadings), Integrating (with items from the integrating and compromising scales), and Avoiding (with items from the avoiding and obliging scales). Principal component analyses of the ROCI-II have also produced inconclusive results (Bilsky & Wülker, 2000; Richardson & Hammock, 1987). A more recent study suggested that the scale had a four-factor structure (Zhang & Liu, 2010). In summary, although there

have been several analyses of the factorial structure of the ROC-II it remains unclear whether the most appropriate model is a three-, four- or five-factor one. This situation reflects the methodological limitations of the studies that have been done so far, namely, 1) the reliance on principal factor analyses rather than maximum likelihood estimation methods, 2) the exclusive use of orthogonal rotation methods for further analysis of factors in preference to oblique methods, 3) the use of principal component analysis (PCA) as a method of extracting factors although the procedure is not part of the common factor model (Brown, 2015).

Since it was developed in the nineteen eighties the ROCI-II has been used in a variety of contexts, e.g. to examine whether conflict style predicts desirable outcomes (e.g. Desivilya, Somech, & Lidgoster, 2010; Zwahr-Castro, Dicke-Bohman, 2014) and to determine the factors influencing conflict style as measured by ROCI-II (e.g. David, Nel, Havenga, & Rabie, 2015; Morris-Rothschild & Brassard, 2006; Solanki & Desai, 2015). However most of these studies neglected to examine the measurement properties of the ROCI-II and just a handful of studies have reported superficial explorations of the latent structure of the ROCI-II (e.g. Chen, Zhao, Liu, & Wu, 2012; Rahim, Antonioni, & Psenicka, 2001; Sorenson, Morse & Savage, 1999; Zhang, Chen, & Sun, 2015). An exception is the confirmatory factor analysis (CFA) study by Rahim and Magner (1995), which is the most comprehensive assessment to date of the latent structure of the ROCI-II. Although this study provided some evidence for the construct validity of the ROCI-II the result of the model fit proved to be rather unsatisfactory: Rahim and Magner reported a satisfactory RNI (relative non-centrality index, McDonald & Marsh, 1990) only in one out of five samples, while the RNI value for the other samples ranged from .73 to .89. Similarly the GFI and AGF values (i.e, goodness of fit and adjusted goodness of fit, Jöreskog & Sörbom, 1981) ranged from .82 to .89 and from .78 to .87 respectively. Rahim and Magner also tested other models based on alternative theoretical models (e.g. Pruitt,

1983), but concluded that the five-factor model fitted the data best. Using a German adaptation of Rahim's scale, Bilsky and Wülker (2000) conducted two principal component analysis (PCAs) with data from a sample of university students and determined the number of factors a priori to four and five, respectively. The five-factor solution replicated the expected factor structure but with high cross-loadings and unexpected primary loadings. The four-factor solution was more plausible and had most of the items attributed to Compromising loading mainly on the Integrating factor. The exploratory nature of Bilsky and Wülker's PCA and the lack of a deeper analysis of the cross-loadings in their factor solution undermine their claim to have reproduced the postulated structure of Rahim's inventory. In summary, although Rahim and colleagues' research is impressive, their analyses were limited in several ways: a) the five-factor model fit of Rahim and Magner (1995) was unsatisfactory and only after 'parceling' the items (cf. Bandalos 2008; Little, Rhemtulla, Gibson, & Schoemann, 2013) the authors claimed a satisfactory solution from a "practical standpoint" (Rahim & Magner, 1995, p. 128), b) the comparison of different models without fit indices controlling for model parsimony weakens the support of the five-factor model; c) the sources of poor fit were not addressed directly; d) no measurement invariance between males and females was explored; e) no sample data from adolescents was used and f) the German version of the ROCI-II has only been analyzed using PCA (see Bilsky and Wülker, 2000) and not from the perspective of a latent variable approach.

In consequence, the primary aim of this study was to evaluate the latent structure of the ROCI-II (as adapted by Bilsky & Wülker, 2000) in a large sample of German secondary school students. To address the methodological limitations of previous studies we first conducted cross-validated exploratory factor analyses to give us a better understanding of the latent structure of the ROCI-II and to identify items that did not behave as intended. Subsequently we conducted analyses within the CFA framework with

independent samples to provide further evidence about the factor structure of the scale; these analyses took into account non-random measurement error. We also evaluated the reliability of the scale and the extent to which its properties varied according to the gender of the respondents.

Method

Participants

The sample consisted of 4112 students from 65 schools who participated in the pilot project 'Living and Learning Democracy' (for more details, see Edelstein & Fauser, 2001; Authors, 2007). In each school the questionnaires were completed by a blind selection of up to four classes drawn from grades 8, 9, and 10, making a total of 176 classes. The questionnaires were filled out during lesson times. The median age of participants was 15 years (M = 15.05, SD = 1.13) and 51 % were girls.

Measures

Adolescents' *style of handling interpersonal conflict* was assessed using 26 items originally developed by Rahim (1983). Three of the 28 original items were changed and 7 were slightly reworded (see Table 1), to make them more relevant to adolescents' everyday life including their school life. One item describing the 'avoiding' style was newly developed (see Table 1). We did not include items describing the 'compromising' style of conflict management, which is characterized by moderate concern for both self and others (see Rahim, 1983), in our adaptation as we anticipated that this style would not be clearly distinguishable from the other four (cf. Bilsky & Wülker, 2000). Adolescent respondents were required to indicate the extent to which they used the various conflict handling styles using a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Five items assessed use of the Dominating style, for example "I persuade others to get my ideas accepted"; six items assessed the Avoiding style, for example "I try to keep my

opinion to myself"; five items assessed the Obliging style, for example "I give in to the wishes of my schoolmates" and seven items assessed use of the Integrating style, for example "I collaborate with my schoolmates to come up with decisions acceptable to us". We also included two scales: The perspective taking scale (PTS) and the participation reluctance scale (PRS). The PTS is composed of 5 Likert-type items (e.g. "When I get mad at someone, I normally try to put myself in the shoes of the person") with a Cronbach Alpha of .73. The PRS is composed of 6 Likert-type items (e.g. "There are more important things than to hear everybody else's opinion") with a Cronbach Alpha of .71.

Procedure

Students completed the ROCI-II as part of the evaluation of the project 'Living and Learning Democracy'. To examine and cross-validate the ROCI-II factor structure the total sample (N = 4112) was randomly divided into four subsamples. These samples were subjected to EFA in the CFA framework (E/CFA; see Brown, 2015). E/CFA provides a way to avoid poor-fitting CFA solutions and extensive post-hoc model testing in the context of specification searchers; it effectively provides a bridge between EFA and subsequent CFA using a different sample. E/CFA provides more information than EFA, namely: a) standard errors for determining the statistical significance of factor loadings and cross-loadings and b) modification indices (MIs) reflecting possible indicator error covariances (e.g. method effects) (Byrne, Shavelson, & Muthén, 1989). E/CFA thus allows the researcher to develop a more realistic measurement model before testing models directly within the more restrictive CFA framework.

The samples were analyzed as follows. The first two samples (Sample 1: n = 1056, 536 boys, 519 girls; Sample 2: n = 1014, 522 boys, 492 girls) were used to conduct initial EFAs with the original 26-item of the ROCI-II. Sample 3 (n = 1052; 531 boys, 521 girls) was used to conduct E/CFA a precursor to CFA (see Results, for further justification).

Sample 4 (n = 1006; 471 boys, 535 girls) was used for CFA replications and generalizability analyses of the final ROCI-II latent structure.

Data analysis

The data were analyzed using a latent variable software program with maximum likelihood parameter estimates robust to non-normality and non-independence of observations (MLR) and weighted least square parameter estimates for categorical dependent variables (WLSMV) (Mplus 8, Muthen & Muthen, 2017)[1]. The CFA models' goodness of fit was evaluated using the root mean square error of approximation (RMSEA; Steiger, 1990), the Tucker–Lewis Index (TLI, Tucker & Lewis, 1973), and the Comparative Fit Index (CFI; Bentler, 1990). Acceptable model fit was defined by the following criteria: RMSEA (< .08, 90%), CFI (>.90), and TLI (>.90) (Little, 2013). We used multiple goodness of fit indices because they each provide different information (i.e. absolute fit, fit adjusting for model parsimony, fit relative to a null model) and together they provide a more reliable indication of model fit. We also calculated residuals and modification indices to explore local misfit of the models (see Brown, 2015; Little, 2013)[2].

Results

Exploratory Factor Analysis

The Sample 1 *(n* = 1156) data were used for EFA (maximum likelihood estimation, geomin rotation) of the 26 ROCI-II items. The acceptability of the factor models (e.g. factor selection) was evaluated in terms of the model's *goodness of fit* (criteria: RMSEA

[1] We originally used the default estimator (ML) for the EFAs conducted in this study. Thanks to the feedback from one of our reviewers we repeated the analysis using MLR and WLSMV and found no differences in the factor pattern matrices. The CFA and ECFA were then conducted using MLR.

[2] The Intraclass correlation for the conflict styles ranged between 0.04 and 0.07 (Abs et al. 2007), which are similar to the attitude variables reported in Muthen & Sartorra (1995, p.297). Considering the small cluster size the design effect for our study was less than 2 (see http://www.statmodel.com/discussion/messages/12/18.html). Finally, conflict styles is a kind of personality variable and our research questions are directed to the individual level: "Not every data set with clustered data needs to be analyzed using multilevel models, especially if the research question focuses only on the level-1 unit" (Huang & Cornell, 2016, p. 11; cf. Raudenbush et al., 1991).

<.08, upper bound of 90% CI <.08), the *conceptual feasibility* of the solution and the strength of the *parameter estimate* (e.g. primary factor loadings >.30 and absence of salient cross-loadings). Unlike Bilsky and Wülker (2000) we found that a four-factor solution fitted the data well (EFA 1, Table 1). However, this solution showed cross-loadings and loadings on factors different from that reported by Bilsky and Wülker. A three-factor solution also converged, but items expected to load on the Obliging factor loaded instead on Integrating and Avoiding factors. As shown in Table 2, items expected to load on the Integrating factor had primary loadings higher than .30 (range: .603 - .712) and no cross-loadings. A similar pattern showed the items for Dominating. On the other hand, just a few items loaded as expected on the Avoiding factor. The same case happened with the factor Obliging. To evaluate the consistency of this solution we replicated the EFA using Sample 2.

The EFA using Sample 2 (n = 1014) data produced a four-factor solution with adequate goodness of fit (EFA 2, Table 1). As in the Sample 1 solution, the items associated with Integrating and Dominating showed similar primary loadings on the expected factor and no cross-loadings. Items 14, 15, and 16 showed a comparable pattern of loadings between the two samples used. In the latter sample though, items 4 and 24 loaded as expected on the Avoiding factor and not on the Obliging factor as occurred in Sample 1 EFA. Most of the items associated with Obliging showed a similar pattern between samples. Due to low primary loading or cross-loading the following items were eliminated from further analyses: items 2, 3, 7, 10, 11, 13, 17, 18, and 22.[3]

Table 1: Goodness of fit indices and Measurement Invariance (MI)

Model	Sample(n)	χ^2 (df)	RMSEA [90%]	CFI	TLI	SRMR

[3] Decisions in psychometrics are not based only on the data and the results of a specific statistical analysis. There is also theoretical considerations that come into play. We decided to keep item 4, because it was a newly one created for this scale. Given that statistical analysis are sample-dependent, we decided to keep also item 24, because it loaded as expected in the second sample. In summary, the criteria of loading does not need to be used rigidly, especially when the aim is to produce a first exploration of the idea of conflict styles in a new population from a latent perspective.

EFA						
EFA 1 four factor solution	Sample 1(1156)	505.522(227)	.034[.030 -.038]	.949	.926	.026
EFA 2 four factor solution	Sample 2(1014)	559.068(227)	.038[.034 -.042]	.934	.905	.027
EFA 3 three factor solution	Sample 1&2(2070)	350.488(88)	.038[.034 -.042]	.958	.934	.024
E/CFA	Sample 3(1052)	188.197(88)	.033[.026 -.039]	.968	.951	.023
CFA						
CFA 1	Sample 4(1006)	188.197(88)	.044[.038 -.049]	.916	.902	.026
CFA 2	Sample 4(1006)	243.140(112)	.034[.028 -.040]	.950	.940	.038
CFA 3	Sample 4(1006)	244.324(113)	.034[.028 -.040]	.950	.940	.038
MI Gender						
Baseline model						
Boys	Sample 4(464)	181.113(114)	.036[.025 -.045]	.941	.930	.049
Girls	Sample 4(534)	223.715(113)	.043[.035 -.051]	.927	.912	.052
Configural Invariance		407.655(230)	.039[.033 -.046]	.933	.921	.051
Metric Invariance		423.933(245)	.038[.032 -.044]	.933	.925	.055
Residual Invariance		423.881(246)	.038[.032 -.044]	.933	.926	.055
MI Grades						
Baseline model						
8th	Sample 4(499)	167.942(113)	.031[.021 -.041]	.954	.945	.044
9th	Sample 4(464)	215.929(113)	.071[.057 -.085]	.828	.793	.076
10th	Sample 4(180)	178.400(113)	.042[.030 -.053]	.941	.929	.051

Table 2: Latent structure of the 26-item Rahim Organizational Conflict Inventory: Exploratory factor analyses in Samples 1 and 2 (n = 1156 and n = 1014, respectively)

	Factor							
	Integrating		Dominating		Avoiding		Obliging	
	S1	S2	S1	S2	S1	S2	S1	S2
ROCI-II item								
1	**.680**	**.632**	-.009	.003	-.020	.075	.004	.133
2obl	**.619**	**.426**	-.011	-.054	-.079	.019	**.340**	**.415**
5	**.697**	**.684**	-.029	.034	-.012	.006	.013	.064
6	**.712**	**.688**	.059	.003	.020	.001	-.007	.068
10obl	**.566**	**.412**	.005	.031	.001	-.044	.137	**.320**
12	**.646**	**.645**	.060	.012	-.006	.009	-.024	.003
13obl	**.482**	.271	.164	.063	-.005	.040	.119	**.359**
18a	**.371**	**.488**	.024	.120	.062	.056	-.009	-.118
20	**.641**	**.691**	.037	.064	.047	.003	-.048	-.032
21	**.672**	**.692**	.046	.017	.080	.002	-.035	-.016
22obl	**.547**	**.432**	.029	.026	.039	.064	.268	**.320**
26	**.603**	**.572**	-.051	-.064	-.116	.088	-.047	.026
8	.116	.047	**.567**	**.574**	-.034	-.172	-085	.037
9	.057	.000	**.529**	**.559**	.017	-.179	-.065	.056
16	-.012	.041	**.559**	**.550**	-.032	.043	.014	-.212
19	-.038	-.039	**.361**	**.418**	.011	.021	.044	-.110
23	-.095	-.109	**.554**	**.535**	.029	.067	.156	.000
14	-.120	-.028	.037	.133	**.627**	**.607**	.101	.025
15	.062	.052	-.040	-.030	**.793**	**.650**	-.036	-.030
25	.056	.110	-.036	-.066	**.473**	**.681**	.241	-.036
4*avoid	-.228	-.298	-.025	.003	.163	**.454**	**.452**	.098
7avoid	-.248	**.309**	.054	.103	.279	**.443**	**.381**	.117
11	.298	-.007	-.047	.084	.009	.113	**.499**	**.576**
24avoid	.020	-.010	.067	.039	.269	**.532**	**.408**	.007

3[avoid]	.213	.088	.053	.119	.080	.180	.253	.154
17[obl]	.240	.142	-.090	-.097	.215	**.325**	.268	.235

Notes: ROCI-II=Rahim Organizational Conflict Inventory; S1=Sample 1; S2=Sample 2. Exploratory factor analysis conducted with maximum likelihood estimation, geomin rotation; Factor loadings >.30 are in bold.
[a] Item loaded primarily on a factor other than that associated with the item in the original ROCI-II subscale scoring.
[obl, avoid] factor of origin. * new item added.

Table 3 shows the geomin-rotated pattern matrix for the 17-item, three-factor solution derived from the combined exploratory samples (EFA 3, Table 1). The factors were weakly correlated: Integrating-Dominating = -.138, Integrating-Avoiding = .121, Dominating-Avoiding = -.157 (all significant at .05 level). The factor determinacy of the factors was high according to Gorsuch's (1983) criterion (i.e. > .80).

Exploratory Factor Analysis Within the Confirmatory Factor Analysis Framework

Samples 3 and 4 were used to cross-validate the latent structure of the revised (17-item) ROCI-II. As an intermediate step between EFA and CFA, the ROCI-II data from Sample 3 (N = 1052) were analyzed using the E/CFA approach (Brown, 2015). A three-factor E/CFA model using items 6, 8 and 25 as anchor items showed a good fit to the data (E/CFA Table 1). The high values of several MIs suggested the existence of error covariances among some items loading on the two main factors (Integrating and Avoiding). Error covariances represent systematic measurement error and may be due to 1) characteristics of the items (e.g. reverse items), 2) characteristics of the respondents (e.g. response tendencies), or 3) overlap of item content (Byrne, 2012). For example a considerable amount of the covariation in items 14 ("I try to steer clear of disputes with class mates"), and 15 ("I avoid confrontations with my class mates") remained unaccounted for in this solution, MI = 24.42; completely standardized expected parameter change (EPC) for the correlated residual = .309. There was also non-trivial error covariance between items 14 and 25 (MI = 19.242, EPC = -.233) and items 24 and 25 (MI = 14.813, EPC = .178). This non-random error could be due to the relatively high overlap in the content of the two items (avoiding differences in opinion/confrontations = problems)

compared with the other items loading on the Avoiding factor (e.g. Item 4 "I like to keep my opinion to myself"). With respect to the items associated with the Integrating factor error covariance was detected for items 5 and 6 (MI = 25.402, EPC = .230), 5 and 20 (MI = 11.562, EPC = -.149) and 20 and 21 (MI = 11.397, EPC = .149). These findings suggest that although the three-factor model was a good fit to the data, a more complex error theory (i.e., the inclusion of correlated errors in the model) may be needed to account for minor factors within two of the latent dimensions (i.e. Integrating and Avoiding).

Table 3: Latent structure of the revised (17-item) Rahim Organizational Conflict Inventory: Exploratory factor analysis (n = 2070, Samples 1 and 2) and exploratory factor analysis conducted within the confirmatory factor analysis framework (n = 1052, Sample 3)

	Factor					
	Integrating		Dominating		Avoiding	
	EFA	E/CFA	EFA	E/CFA	EFA	E/CFA
ROCI-II item						
1	**.677**	**.724**	.005	.072	-.034	-.090
5	**.717**	**.677**	.005	.035	-.001	-.001
6*	**.728**	**.737**	-.024	.000	.005	.000
12	**.658**	**.654**	.039	.014	-.009	-.081
20	**.655**	**.697**	.040	.077	-.001	-.020
21	**.676**	**.685**	.021	.075	.018	.002
26	**.587**	**.578**	-.055	-.031	.077	.097
8*	.134	.000	**.582**	**.621**	-.027	.000
9	.078	.045	**.543**	**.592**	-.008	-.029
16	.031	-.095	**.559**	**.558**	.067	.084
19	-.005	-.067	**.391**	**.329**	.066	.019
23	-.004	-.175	**.562**	**.519**	.205	.218
4	-.213	-.276	.019	.014	**.461**	**.543**
14	-.031	-.206	.092	-.008	**.657**	**.696**
15	.091	-.062	-.022	-.108	**.665**	**.696**
24	.023	-.162	.082	.104	**.557**	**.591**
25*	.095	.000	-.029	.000	**.669**	**.618**
Determinacy	.926	.928	.819	.829	.873	.854

Notes: ROCI-II=Rahim Organizational Conflict Inventory; EFA=exploratory factor analysis (maximum likelihood extraction, geomin rotation); E/CFA=exploratory factor analysis within the confirmatory factor analysis framework (maximum likelihood). Items with asterisks were used as anchor indicators in the E/CFA analysis. Factor loadings > .30 are in bold.

Confirmatory Factor Analysis

In comparison to the E/CFA findings, a CFA with Sample 4 ROCI-II data (n =1006) without any further constraint on the measurement errors, showed a substantial increase in the overall fit of the model (CFA 1, Table 1). MIs showed that strains in the solution might be due to 1) strong cross-loading of item 4 on Integrating (MI = 38.206 , EPC = -.230); 2) modest cross-loading of item 25 on Integrating (MI = 15.382 , EPC = .140); 3) high MIs for the six error covariances described in the previous section (MI range =10.825 – 39.045, EPC range =.143 – .329); 4) five new error covariances, the highest of which was between items 15 and 24 (MI = 39.045, EPC = -.329). In order to re-specify the solution without overfitting the model we followed three principles. First, substantive meaningfulness of the new parameter to be estimated. Second, high MIs and EPCs values of the parameter. And third, scientific parsimony (Byrne, 2012). In view of the results of the E/CFA and interpretability of some of the error covariance and the cross-loadings, the solution was re-specified with three correlated residuals (items 15 and 24; items 24 and 25; items 14 and 15) and one cross-loading (item 4 on Integrating). This solution fitted the data better (CFA 2, Table 1). However, one of the estimated parameters turned out to be non-significant (items 24 and 25); removing this parameter did not improve the fit of the solution (CFA 3, Table 1), but it did increase the overall parsimony of the model. As shown in Table 4, the factor loadings were fairly high (range = .239 – .706) and the factor determinacies were satisfactory (range = .814 – .917). Factor inter-correlations were: Integrating–Avoiding = .154 ($p < .05$), Avoiding–Dominating = -.019 (n.s.), and Integrating–Dominating = .003 (n.s.). Finally, the cross-loads and the remaining two correlated residuals were significant at the .05 level.

Table 4: Test for Invariance of the revised (17-item) Rahim Organizational Conflict Inventory across gender and grades.

Model	MLR χ^2(df)	RMSEA	SRMR	CFI	TLI	ΔMLR χ^{2a}	Δdf
MI Gender							
Baseline model							
Boys	181.113(114)	.036[.025 -.045]	.049	.941	.930	-	-
Girls	223.715(113)	.043[.035 -.051]	.052	.927	.912	-	-
Configural Invariance	407.655(230)	.039[.033 -.046]	.051	.933	.921	-	-
Metric Invariance	423.933(245)	.038[.032 -.044]	.055	.933	.925	12.884	15
Residual Invariance	423.881(246)	.038[.032 -.044]	.055	.933	.926	0.037	1
MI Grades							
Baseline model							
8th	167.942(113)	.031[.021 -.041]	.044	.954	.945	-	-
9th	215.929(113)	.071[.057 -.085]	.076	.828	.793	-	-
10th	178.400(113)	.042[.030 -.053]	.051	.941	.929	-	-
Configural Invariance[b]	352.468(229)	.036[.028-.043]	.053	.946	.936	-	-
Metric Invariance[b]	369.882(244)	.035[.028-.042]	.065	.945	.939	13.766	15
Residual Invariance[bc]	371.045(245)	.035[.028-.042]	.065	.945	.939	0.927	1

[a] corrected values (Byrne, 2012); [b] only grades 8th and 9th. ; [c] after the residual of item 14 and 15 were freed.

Table 5: Latent structure of the revised (17-item) Rahim Organizational Conflict Inventory: Confirmatory factor analysis using Sample 4 (n =1006; boys n = 464, girls n = 534)

	Factor								
	Integrating			Dominating			Avoiding		
	All	Boys	Girls	All	Boys	Girls	All	Boys	Girls
ROCI-II item									
1	.683	.656	.702						
5	.607	.595	.612						
6	.706	.682	.717						
12	.657	.646	.645						
20	.659	.640	.666						
21	.611	.585	.629						
26	.612	.608	.606						
4	-.239	-.219	-.225						
8				.606	.578	.610			
9				.603	.637	.647			
16				.549	.512	.537			
19				.354	.369	.363			
23				.440	.410	.429			
4							.526	.521	.536
14							.501	.516	.525
15							.657	.680	.653
24							.624	.615	.637
25							.680	.658	.683
Determinacy	.917	.909	.919	.814	.810	.823	.876	.887	.879

Reliability*	.835	.829	.833	.646	.615	.671	.727	.696	.753

Note: ROCI-II=Rahim Organizational Conflict Inventory. * Reliability calculated using Raykov's (2009) approach

Measurement Invariance Across Gender and School Grades

The measurement invariance (equal factor loadings and indicator intercepts) of the 17-item ROCI-II with respect to gender and school grade was assessed using multiple-group CFA of Sample 4 data (boys $n = 464$; girls $n = 534$) after establishing a baseline model for the specific groups based on the final solution obtained for the full sample in the previous section (Table 4). As for gender the analysis showed that both groups had the same baseline model, except that amongst boys the error covariance between items 14 and 15 was non-significant and was therefore removed without altering the overall fit of the model. The two-group CFA, testing configural invariance, fit the data well. Next we examined the metric equivalence of the ROCI-II. The analysis indicated that the factor loadings were invariant for boys and girls. Table 5 shows factor loadings and determinacies for both boys and girls. In the next model residual covariances were constrained to equality; this also produced evidence for the measurement invariance of the ROCI-II across gender. Concerning school grades, it was not possible to specify a baseline model for the 9th graders. Therefore invariance was not possible to be established across grades. Nevertheless we explore the invariance between grades 8 and 10 and it was possible to obtain evidence of equivalence of the measurement model across these two specific grades.

Convergent Validity of the ROCI-II

The convergent and discriminant validity of the three ROCI-II dimensions were examined by correlating the relevant factors with scores on other scales (Perspective Taking Scale, PTS and Participation Reluctance Scale, PRS) obtained from the same survey (Abs et al., 2007). Although we do not know of any study relating theses constructs with conflict styles, we reasoned the tendency to consider others situations and perspectives could be seen

as a prerequisite that could increase the probability of showing a specific conflict style in conflictive situations. Therefore we predicted that PTS would be positively related to the ROCI-II Integrating factor, and negatively related to the Dominating factor. In addition, it should not be related to the Avoiding factor, because person with high PTS would tend to better understand the conflict situation – by including the opponents perspective – and therefore more willing to take an active role in the solution of the conflict, not in its avoidance. Finally, adolescents that do not see a value in listening others, in general social exchange or in influencing others behavior in any way, would tend in conflict situation to show a more reluctant tendency to engage actively in it. Therefore, we predicted that the PRS would be strongly positively related to the ROCI-II Avoiding factor and negatively related to both Integrating and Dominating.

The correlations among the scales and factors are presented in Table 5. Each of the correlations was in the predicted direction and of the predicted magnitude. RES was positively correlated with the ROCI-II Dominating factor (r = .324) but uncorrelated with Integrating and Avoiding (r = .09 and r = .08, respectively). Likewise, PTS showed a moderate positive correlation with Integrating (r = .419) and uncorrelated with Dominating and Avoiding (r = .09 and r = .08, respectively). Finally, PRS showed the expected positive correlation, although it was not high, with the ROCI-II Avoiding factor (r = .149) as well as being negative correlated with Integrating (r = -.202). The expected negative correlation with Dominating was not found (r = .054).

Table 4: Different relationships of the revised (17-item) Rahim Organizational Conflict Inventory factors with scales assessing perspective taking and participation reluctance based on Sample 4 (n =1006)

	Factors		
Variables	Integrating	Dominating	Avoiding
Perspective taking scale – PTS	.419	-.082	.069
Participation reluctance scale - PRS	-.202	.054	.149

Note: All correlations are significant given surely to the sample size

Discussion

The aim of this study was to explore the latent structure of the ROCI-II in an adolescent sample. We identified a three-factor model of the ROCI-II with satisfactory psychometric properties using a series of cross-validated EFAs, E/CFA, CFAs, tests of measurement invariance across gender, and assessment of the concurrent validity of emergent factors in a large sample of adolescents. Partly owing to differences in methodology our results differ from those of previous studies, which used samples of business professionals or university students (e.g. Bilsky & Wülker, 2000). Initial EFAs led to the elimination of many original items of the German translation (Bilsky & Wülker, 2000) due to the weakness or ambiguity of their primary loading. Given that the items expected to load onto the factor Obliging showed loadings on the Integrating factor, they were eliminated from the scale. Analysis of the revised 17-item scale produced a three-factor structure (Integrating; Dominating; Avoiding) which was very consistent across replication samples. Likewise, multiple-group CFA showed that the properties of the revised ROCI-II were invariant across gender.

It is not surprising that we found evidence for a three-factor solution, given that other studies have either found support for a five-factor solution (Rahim & Magner, 1995) or for a two-, three-, or four-factor solution in which only two of the factors coincide with the predictions of Rahim and colleagues (e.g. Bustos, Olave, & Cubillos, 2008). Weider-Hatfield (1988) summarized several studies proposing a three-factor solution (Integrating, Dominating and Avoiding factors). The only common ground between our findings and Weider-Hatfield's report is, however, that we also found the Dominating style to be a unique dimension, that is, with no cross-loadings and items loading as expected based on theoretical and empirical considerations. We also found Avoiding to be a unique dimension (whereas Weider-Hatfield concluded that items associated with the Obliging scale load on the Avoiding factor) and that

items associated with the Obliging scale loaded on the Integrating factor. Bilsky and Wülker (2000) simply added together all item loadings in a factor irrespective of whether the items included had loadings in accordance with the authors own theory-based expectations. On the contrary, we decided to delete the items that did not seem to be interpretable, that showed high cross-loadings and that did not load high enough (>.30) on any factor. We did so for reasons of parsimony, to avoid capitalizing the extra degrees of freedom gained when factors have more than three indicators (Little, 2013) and after considering previous studies which found no differences in use of the Obliging style across stages of moral development (Rahim, Buntzman, & White, 1999), studies showing that Integrating and Obliging styles predicted the same outcome (e.g. marital satisfaction, Frisby & Westerman, 2010), and studies showing that Integrating and Obliging were respectively positively and negatively correlated with emotional intelligence (Morrison, 2008). These mixed empirical results suggested that merging of the two dimensions is an unsatisfactory solution to the problems presented by cross-loadings of items.

Some possible explanations for the behavior of the items expected to load on the Obliging factor may be related to the conceptual overlap between the dimensions of the managerial grid (Blake & Mouton, 1964; Rahim & Manger, 1995). At a conceptual level Integrating and Obliging styles, unlike Dominating and Avoiding styles, relate to engaging with others and considering their interests. An Integrating style implies a willingness to make concessions, which is also a central characteristic of Obliging. It should also be noted that the adolescent sample used in this study were mostly, we believe, at stage three of moral development (Kohlberg, 1969; Rest & Thomas, 1985; Rahim et al., 1999; Chow & Ding, 2002), where group orientation is strong and being accepted by one's peer group is very important. This might have resulted in youngsters perceiving behaviors associated with the Integrating and Obliging styles as more socially desirable than those associated with the

Dominating and Avoiding styles. Likewise at this stage individuals want to look good to their peers, the group to which they feel they belong and this may have made it more difficult for our participants to differentiate between Integrating and Obliging; individuals who have achieved a higher level of moral development might be better equipped, from a cognitive perspective, to distinguish the nuances of the various strategies available to their peer group. For instance, individuals who have reached the fourth stage of moral development are more likely to argue in terms of general norms and less likely to base their decisions on immediate feedback from their peers. Future research could investigate the relationship between stages of moral development and the factor structure of conflict styles.

In summary, we present a conflict style scale for adolescents with a clear three-factor – Integrating, Dominating and Avoiding - structure. Democratic societies rely on a high number of people developing an integrating conflict management style and reducing their reliance on dominating and avoiding styles during adolescence so that they are better equipped to participate in school life and in social life more broadly. This current 17-Scale might be a useful tool for further studying those developments in school contexts.

References

Authors (2007). *Abschlussbericht zur Evaluation des BLK-Programms „Demokratie Lernen und Leben“ [Final Evaluation of the Program „Democracy Learning and Living]*. Frankfurt: GFPF.

Bandalos, D. L. (2008). Is parceling really necessary? A comparison of results from item parceling and categorical variable methodology. *Structural Equation Modeling, 15,* 211–240.

Bentler, P. M. (1990). Comparative fit indices in structural models. *Psychological Bulletin, 107*, 238–246.

Bilsky, W. & Wülker, A. (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)].* (Report from the Institute of Psychology IV, University of Münster. Extracted from http://www.uni-muenster.de/imperia/md/content/psyifp/aebilsky/fb_21neu.pdf

Blake, R. R., & Mouton, J. S. (1964). *The managerial grid.* Houston: Gulf Publishing.

Bowles, T. (2009). A comparison of two measures of communication and the communication style of university students. *E-Journal of Applied Psychology, 5*(1), 53-66.

Brown, T. (2015). *Confirmatory factor analysis for applied research*. New York: The Guilford Press.

Bustos, P., Olave, M., & Cubillos, R. (2008). *Analisis de la estructura factorial del inventario de estilos de manejo de conflicto ROCI - II: Comparacion entre la medida original y medida modificada [Analysis of the factorial structure of the conflict style inventory ROCI-II: A comparison between the original and modified measure]*. Unpublished doctoral Thesis, University of Talca.

Byrne, B.M. (2012). *Structural equation modeling with Mplus. Basic concepts, applications, and programming*. New York: Routledge.

Byrne, B. M., Shavelson, R. J., & Muthén, B. (1989). Testing for the equivalence of factor covariance and mean structures: The issue of partial measurement invariance. *Psychological Bulletin, 105*, 456–466.

Chen, X., Zhao, K., Liu, X., & Wu, D. (2012). Improving employees' job satisfaction and innovation performance using conflict management. *International Journal of Conflict Management, 23*(2), 151-172.

Chow, I. H. S. & Ding, D. Z. Q. (2002). Moral judgment and conflict handling styles among Chinese in Hong Kong and PRC. *Journal of Management Development*, *21*(9), 666-679.

David, M., Nel, J., Havenga, W., & Tinda, R. (2015). Conflict management and job characteristics of nurses in South African public hospitals. *Journal of Psychology in Africa, 25*(4), 288-296.

Desivilya, H., Somech, A., & Lidgoster, H. (2010). Innovation and conflict management in work teams: The effects of team identification and task and relationship conflict. *Negotiation and Conflict Management Research, 3*(1), 28-48.

Edelstein, W. & Fauser, P. (2001). *„Demokratie lernen und leben“ Gutachten für ein Modelversuchsprogramm der BLK [„Democracy Learning and Living“ Evaluation of a pilot intervetion program].* Bonn: Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung.

Eschelman, D. (1982). *The relationship between innovation and the styles of handling interpersonal conflict*. Unpublished master’s thesis. Youngstown State University, Youngstown, OH.

Frisby, B., & Westerman, D. (2010). Rational actors: Channel selection and rational choices in romantic conflict episodes. *Journal of Social and Personal Relationships, 27*(7), 970-981.

Gorsuch, R. L. (1983). *Factor analysis*. Hillsdale, NJ: Erlbaum.

Hammock, G., Richardson, D., Pilkington, C., & Utley, M. (1990). Measurement of conflict in social relationships. *Personality and Individual Differences, 11*(6), 577-583.

Hammock, G., Richardson, D., Pilkington, C., & Utley, M. (1990). Measurement of conflict in social relationships. *Personality and Individual Differences, 11*(6), 577-583.

Huang, F. L. & Cornell, D.G. (2016). Using multilevel factor analysis with cluster data: Investigating the factor structure of the positive values scale. *Journal of Psychoeducational Assessment, 34*(1), 3-14.

Jöreskog, K.G., & Sörbom, D. (1981). *LISREL V: Analysis of linear structural relationships by the method of maximum likelihood*. Chicago: National Educational Resources, Inc.

Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization: Theory and research* (pp. 347-480). Chicago: Rand McNally.

Little, T. (2013). *Longitudinal structural equation modeling*. New York: The Guilford Press.

Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the items versus parcels controversy needn't be one. *Psychological Methods, 18*, 285–300.

McDonald, R.P., & Marsh, H.W. (1990). Choosing a multivariate model: Noncentrality and goodness of fit. *Psychological Bulletin, 107*, 247–255.

Morrison, J. (2008). The relationship between emotional intelligence competences and preferred conflict-handling styles. *Journal of Nursing Management, 16*(8), 974–983

Morris-Rothschild, B., & Brassard, M. (2006). Teachers' conflict management styles: The role of attachment styles and classroom management efficacy. *Journal of School Psychology, 44*(2), 105-121.

Muthen, L. K. & Muthen, B. O. (2017). *Mplus statistical modeling software (Version 8)*. Los Angeles: Muthén & Muthén.

Muthen, B. O. & Sartorra, A. (1995). Complex sample data in structural equation modeling. *Sociological Methodology, 25*, 267-316.

Pruitt, D. G. (1983). Strategic choice in negotiation. *American Behavioral Scientist, 27*, 167-194.

Rahim, M. A. (1983). A measure of styles of handling interpersonal conflict, *Academy of Management Journal, 26*, 368–376

Rahim, M. A., Antonioni, D., & Psenicka, C. (2001). A structural equations model of leader power, subordinates' styles of handling conflict, and job performance. *International Journal of Conflict Management, 12*(3), 206-235.

Rahim, M. A., & Buntzman, G. F. (1987, August). *Relationships of leader power to styles of handling conflict with subordinates, compliance, and satisfaction*. Paper presented at the Academy of Management Meeting, New Orleans, Louisiana.

Rahim, M. A., Buntzman, G., & White, D. (1999). An empirical study of the stages of moral development and conflict management. *International Journal of Conflict Management, 10*(2), 154-171.

Rahim, M. A., & Magner, N.R. (1995). Confirmatory factor analysis of the styles of handling interpersonal conflict: First-order factor model and its invariance across groups. *Journal of Applied Psychology, 80*, 122–132.

Raudenbush, S., Rowan, B., & Cheong, F. Y. (1991). *Teaching for higher-order thinking in secondary schools: Effects of curriculum, teacher preparation, and school organization*. East Lansing: Michigan State University, College of education

Raykov, T. (2009). Evaluation of the scale reliability for unidimensional measures using latent variable modeling. *Measurement and Evaluation in Counseling and Development, 42*(3), 223-232.

Rest, J. R., & Thomas, S. J. (1985). Relation of moral judgement to formal education. *Developmental Psychology*, *21*(4), 709-714.

Richardson, D. R., & Hammock, G. S. (1987, June). *Interpersonal conflict management in close relationships: Motivation versus skills*. Paper presented at the First International Conference of the Conflict Management Group, Fairfax, Virginia.

Solanki, N., & Desai, M. (2015). Gender role and conflict management styles among organizational employees. *Indian Journal of Community Psychology, 11*(1), 139-146.

Sorenson, R., Morse, E., & Savage, G. (1999). A test of the motivations underlying choice of conflict strategies in the dual-concern model. *International Journal of Conflict Management, 10*(1), 25-44.

Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika, 38*, 1–10.

Weider-Hatfield, D. (1988). Assessing the Rahim organizational conflict inventory-II (ROCI-II). *Management Communication Quarterly, 1*(3), 350-366.

Weider-Hatfield, D., & Hatfield, J. D. (1987, June). *Relationships among conflict management styles, levels of conflict, and reactions to work*. Paper presented at the First International Conference of the Conflict Management Group, Fairfax, Virginia.

Young, C. (1985). *The relationship between rhetorical sensitivity and conflict management style*. Unpublished master's thesis. University of Georgia, Athens.

Zhang, Y. & Liu, H. (2010). Factorial structure of Rahim Organizational Conflict Inventory-II in Chinese college students. *Chinese Journal of Clinical Psychology, 18*(5), 584-586.

Zhang, S., Chen, Y., & Sun, H. (2015). Emotional intelligence, conflict management styles, and innovation performance: An empirical study of Chinese employees. *International Journal of Conflict Management, 26*(4), 450-478.

Zwahr-Castro, J., & Dicke-Bohman, A. (2014). Who can be friends? Characteristics of those who remain friends after dissolution of a romantic relationship. *Individual Differences Research, 12*(4), 142-152.

Annex 1: List of the items used in the present study

Dimension	Bilsky, W. & Wülker, A. (2000).	Present study (Authors, 2007) (English translation)	Item number
Integrating	1. Ich versuche, einem Problem gemeinsam mit meinen Kollegen/Bekannten auf den Grund zu gehen,um eine für alle akzeptable Lösung zu finden.	ZSKON1-Ich versuche, einem Problem gemeinsam mit meinen Mitschüler/-innen auf den Grund zu gehen, um eine für alle gute Lösung zu finden (I try to get to the bottom of a problem with my classmates and find a solution that is good for everyone.)	1
Obliging	2. Ich versuche im allgemeinen, den Bedürfnissen meiner Kollegen/Bekannten gerecht zu werden.	ZSKON2-Ich versuche im allgemeinen, den Wünschen meiner Mitschüler/innen gerecht zu werden (I generally try to meet my classmates' wishes.)	2
Avoiding	3. Ich versuche, mich nach Möglichkeit nicht festlegen zu lassen und bemühe mich, meine Konflikte mit meinen Kollegen/Bekannten für mich zu behalten.	ZSKON3- Ich versuche, mich nach Möglichkeit nicht festzulegen (I try not to commit myself, if possible.)	3
Avoiding		ZSKON4- Ich behalte meine Meinung gerne für mich (I like keeping my opinion to myself.)	4
Integrating	4. Ich versuche, meine Ideen mit denen meiner Kollegen/Bekannten abzustimmen, um so gemeinsam zu einer Entscheidung zu gelangen.	ZSKON5-Ich versuche, meine Ideen mit denen meiner Mitschüler/innen abzustimmen, um gemeinsam zu einer Entscheidung zu gelangen (I try to communicate my ideas to my classmates and find a joint decision.)	5
Integrating	5. Ich bemühe mich, mit meinen Kollegen/Bekannten die Lösung für ein Problem zu finden, die unsere Erwartungen erfüllt.	ZSKON6-Ich bemühe mich, mit meinen Mitschüler/innen die Lösung für ein Problem zu finden, die alle Erwartungen erfüllt (I make an effort to find a solution to a problem that meets all expectations, together with my classmates)	6
Avoiding	6. Ich vermeide gewöhnlich offene Diskussionen über Differenzen mit meinen Arbeitskollegen/Bekannten.	ZSKON7-Ich vermeide gewöhnlich offene Diskussionen über verschiedene Meinungen mit meinen Mitschüler/innen (I usually avoid open discussions with my classmates about different opinions.)	7
Dominating	8. Ich nutze meinen Einfluß, um meine Ideen durchzusetzen.	ZSKON8- Ich überrede andere, um meine Ideen durchzusetzen (I persuade other people, to assert my ideas.)	8
Dominating	9. Ich nutze meine Autorität, um eine Entscheidung zu meinen Gunsten herbeizuführen.	ZSKON9-Ich nutze meine Stärke, um meinen Willen durchzusetzen (I use my strength to assert what I want.)	9
Obliging	10. Ich komme den Wünschen meiner Kollegen/Bekannten normalerweise entgegen.	ZSKON10-Ich komme den Wünschen meiner Mitschüler/innen normalerweise entgegen (I am normally accommodating regarding my classmates' wishes.)	10
Obliging	11. Ich gebe den Wünschen meiner Kollegen/Bekannten nach.	ZSKON11-Ich gebe den Wünschen meiner Mitschüler/innen nach (I give in to my classmates' wishes.)	11
Integrating	12. Ich tausche mit meinen Kollegen/Bekannten genaue Informationen aus, um ein Problem gemeinsam zu lösen.	ZSKON12-Ich tausche mit meinen Mitschüler/innen lange Informationen aus, um ein Problem gemeinsam zu lösen (I spend a lot of time exchanging information with my classmates to solve a problem together.)	12
Obliging	13. Ich mache meinen Kollegen/Bekannten gegenüber im allgemeinen Zugeständnisse.	ZSKON13-Ich mache meinen Mitschüler/innen gegenüber im allgemeinen Zugeständnisse (I generally make allowances to my classmates.)	13

Avoiding	16. Ich versuche, Meinungsverschiedenheiten mit meinen Kollegen/Bekannten aus dem Weg zu gehen.	ZSKON14-Ich versuche, Meinungsverschiedenheiten mit meinen Mitschüler/innen aus dem Weg zu gehen (I try to avoid conflicts of opinions with my classmates.)	14
Avoiding	17. Ich vermeide Konfrontationen mit meinen Kollegen/Bekannten.	ZSKON15- Ich vermeide Auseinandersetzungen mit meinen Mitschüler/innen (I avoid arguing with my classmates.)	15
Dominating	18. Ich nutze meine Sachkenntnis, um eine Entscheidung zu meinen Gunsten herbeizuführen.	ZSKON16-Ich nutze mein besseres Wissen, um andere auszutricksen (I use my better knowledge to outwit other people.)	16
Obliging	19. Ich schließe mich den Vorschlägen meiner Kollegen/Bekannten oft an.	ZSKON17-Ich schließe mich den Vorschlägen meiner Mitschüler/innen oft an (I often follow my classmates' suggestions.)	17
Compromising	20. Ich verfahre nach dem Prinzip "geben und nehmen", so daß ein Kompromiß gefunden werden kann.	ZSKON18- Ich verfahre nach dem Prinzip "geben und nehmen", so dass ein Kompromiss gefunden werden kann (I pursue the principle of "give and take" so that it is possible to find compromises.)	18
Dominating	21. Ich verfolge meine Interessen im allgemeinen energisch.	ZSKON19-Ich verfolge meine Interessen im allgemeinen ohne auf andere zu hören (I generally pursue my own interests without listening to other people.)	19
Integrating	22. Ich versuche, all unsere Anliegen offenzulegen, so daß die Probleme auf die bestmögliche Art gelöst werden können.	ZSKON20-Ich versuche, all unsere Wünsche offenzulegen, so dass Probleme gut gelöst werden können (I try to disclose all our wishes so that problems can easily be solved.)	20
Integrating	23. Ich arbeite mit meinen Kollegen/Bekannten zusammen, um zu Entscheidungen zu kommen, die für uns akzeptabel sind.	ZSKON21-Ich arbeite mit meinen Mitschüler/innen zusammen, um für alle gute Entscheidungen zu bekommen (I cooperate with my classmates to reach decisions that are good for all of us.)	21
Obliging	24. Ich versuche, die Erwartungen meiner Kollegen/Bekannten zu erfüllen.	ZSKON22-Ich versuche, die Erwartungen meiner Mitschüler/innen zu erfüllen (I try to meet my classmates' expectations.)	22
Dominating	25. Ich nutze manchmal meinen Einfluß, um eine Wettbewerbssituation für mich zu entscheiden.	ZSKON23-Ich mache manchmal etwas heimlich, um mich gegen andere durchzusetzen (I sometimes do something secretly to assert myself against other people.)	23
Avoiding	26. Ich versuche, meine abweichende Meinung gegenüber Kollegen/Bekannten für mich zu behalten um kein böses Blut zu schaffen.	ZSKON24-Ich versuche, meine abweichende Meinung gegenüber Mitschüler/innen für mich zu behalten, um kein böses Blut zu schaffen (I try to keep my divergent opinion to myself regarding my classmates, in order to prevent ill feelings.)	24
Avoiding	27. Ich versuche, unerfreuliche Wortwechsel mit meinen Kollegen/Bekannten zu vermeiden.	ZSKON25- Ich versuche, Streit über Meinungen mit meinen Mitschüler/innen zu vermeiden (I try to avoid quarrelling about opinions with my classmates.)	25
Integrating	28. Ich versuche, mit meinen Kollegen/Bekannten zu einem einvernehmlichen Verständnis eines Problems zu gelangen.	ZSKON26- Ich versuche, mit meinen Mitschüler/innen zu einem gemeinsamen Verständnis des Problems zu gelangen (I try to reach a mutual understanding with my classmates regarding a problem.)	26