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Personal peer victimization and ethnic peer victimization: Findings on their co-occurrence, predictors, and outcomes from a latent profile analysis

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Abstract

Background. Findings on whether immigrant students suffer from higher levels of peer victimization have been inconsistent, perhaps due to a blend of measures for personal and ethnic peer victimization.

Objective. In this study, we investigated personal and ethnic peer victimization using latent profile analyses. The profiles were related to various predictor and outcome variables.

Participants and Setting. The sample consisted of *N*=4,367 German elementary school students attending grades 3 and 4.

Methods. The students responded to eight items addressing personal peer victimization and one item addressing ethnic peer victimization.

Results. The findings indicated a three-profile solution. In Profile 1, students experienced a combination of personal and ethnic peer victimization; Profile 2 contained students without any victimization experiences; in Profile 3, students experienced personal peer victimization only. Relative to native German-speaking students, non-native German-speaking students had a higher chance to be classified in Profile 1 compared to Profiles 2 and 3. Both profiles of peer victimization (i.e., Profiles 1 and 3) were associated with negative outcomes including higher levels of different types of anxiety and depression, and lower levels of self-esteem and peer self-concept.

Conclusions. Student subgroups of different patterns of peer victimization were found, whereby ethnic peer victimization was blended with personal peer victimization in one subgroup, and personal peer victimization was experienced in a pure form in another subgroup. The two victimization subgroups did not differ with regard to outcomes, but were differentially predicted by students' native language.

Keywords: peer victimization; ethnic peer victimization; depression; anxiety; self-esteem; peer self-concept

Peer victimization is a widespread phenomenon in the school context (for an overview see Hawker & Boulton, 2000). Many studies have documented that students with an immigrant background have a higher chance to become victims of peer victimization (Alivernini, Manganelli, Cavicchiolo, & Lucidi, 2019; Maynard, Vaughn, Salas-Wright, & Vaughn, 2016; Strohmeier, Kärnä, & Salmivalli, 2011). However, when distinguishing between ethnic peer victimization and personal peer victimization, immigrant students only reveal higher mean levels on ethnic peer victimization (Vitoroulis & Vaillancourt, 2015). In our study, we investigated whether this finding can be replicated with German elementary school students when using latent profile analyses (Berlin, Williams, & Parra, 2014). We thus examined whether we could disclose subgroups of students characterized by differential patterns of ethnic and personal peer victimization. Moreover, we investigated whether students' membership to subgroups could be predicted by students' nationality, native language, and gender. Finally, we studied whether the identified patterns of peer victimization were related to various outcome variables including internalizing problems with multiple forms of anxiety and depression, and students' self-esteem and peer self-concept.

Immigrant Students and Peer Victimization

Peer victimization is defined as "(…) the experience among children of being a target of the aggressive behaviour of other children (…)" (Hawker & Boulton, 2000, p. 441). It is hard to differentiate peer victimization from bullying (Cooc & Gee, 2014). Peer victimization might be a broader construct while bullying is specifically characterized by intentionality, repetition, and power imbalance in the victimization acts (Furlong, Sharkey, Felix, Tanigawa, & Greif Green, 2010; Olweus, 2010). In this study, we use the term 'peer victimization' in order to pursue a broader approach to victimization acts among children.

Theoretically, immigrant students can be expected to suffer from higher levels of peer victimization. According to social identity theory (Turner, 1975), individuals strive to gain

positive self-perceptions, which are partly determined by their social identity. One way to gain a positive social identity and thus to enhance ones' self-perceptions is to positively evaluate the group one belongs to (i.e., one's ingroup).To this aim, individuals compare their ingroup to other groups (i.e., outgroups), accentuate positive characteristics of their ingroup, and delimit their ingroup from outgroups. This striving for distinctiveness of one's ingroup relative to outgroups leads to an ingroup bias – also known as ingroup favouritism – which is defined as " (…) any tendency to favour the ingroup over the outgroup, in behaviour, attitudes, preferences or perception" (Turner, Brown, & Tajfel, 1979; p. 187) and can thus lead to discriminatory behavior against outgroups.

Correspondingly, many studies from different countries have indeed demonstrated that students with an immigrant background are at a higher risk of being victims of peer victimization than non-immigrant students (e.g. Alivernini et al., 2019; Goldweber, Waasdorp, & Bradshaw, 2013; Maynard et al., 2016; Strohmeier et al., 2011; Wolke, Woods, Stanford, & Schulz, 2001). However, other studies showed no differences in the mean levels of peer victimization between immigrant and non-immigrant students (e.g., Fandrem, Strohmeier, & Roland, 2009; Llorent, Ortega-Ruiz, & Zych, 2016; Seals & Young, 2003; Strohmeier & Spiel, 2003; Tippett, Wolke, & Platt, 2013).

Personal and Ethnic Peer Victimization

Peer victimization is a multifaceted construct as the target and focus of the victimization acts can differ. Most often, peer victimization is associated with a personal focus as the victimization targets some special characteristics of individuals. In the case of ethnic peer victimization [also called ethnic bullying (McKenney, Pepler, Craig, & Connolly, 2006), ethnic-cultural bullying (Rodríguez-Hidalgo, Calmaestra, Casas, & Ortega-Ruiz, 2019) or cultural victimization (Monks, Ortega-Ruiz & Rodríguez-Hidalgo, 2008)], students are victimized because of their ethnicity, race, or origin. Hence, the focus of ethnic peer

victimization is more comprehensive and pervasive since it addresses students in a broader way also targeting students' cultural background and origin (Eslea & Mukhtar, 2000; Scherr & Larson, 2010; Verkuyten & Thijs, 2006). Ethnic peer victimization is closely related to ethnic discrimination as considered in many empirical studies (e.g., Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008; Niwa, Way, & Hughes, 2014). Here, we use the term 'ethnic peer victimization' as probably the broadest and most comprehensive term to describe victimization due to students' ethnicity, race, or origin. Moreover, we refer to ethnic peer victimization rather than to racial peer victimization. Although the terms are blurred and interchangeably used, ethnic peer victimization might be the more useful term since ethnicity addresses individuals' cultural practices, beliefs, and habits including language and religion, while the term race is commonly restricted to physical features (Monks et al., 2008; Scherr & Larson, 2010).

The ambiguous empirical evidence as to whether immigrant students do or do not suffer from higher levels of peer victimization might result from inconsistencies in the measurement of peer victimization. In other words, the finding of whether immigrant students have higher levels of peer victimization than non-immigrant students might vary contingent upon whether personal peer victimization or ethnic peer victimization is measured. Immigrant and non-immigrant students might not differ in their general prevalence or frequency of peer victimization but rather in the type or content of peer victimization. "It is possible that they are not more likely to be targeted but are targeted differently (e.g., via racist remarks) […]" (Strohmeier et al., 2005). Indeed, Sulkowski, Bauman, Wright, Nixon, and Davis (2014) found that immigrant students were more likely to be victimized because of their race, religion, and family income than non-immigrant students. However, immigrant and non-immigrant students did not differ in their reports of being victimized because of their appearance in this study. In the study by Monks et al. (2008), students of cultural minority

status were found to report more frequent victimization due to cultural background than students of cultural majority status. However, both groups did not differ in their experiences of personal victimization. Similarly, in the study by Vitoroulis and Georgiades (2017) with Canadian students, non-White students reported higher levels of ethnic peer victimization than White students, but did not differ in their reported levels of physical, verbal, and social (i.e., non-ethnic) victimization. In another study with Canadian students, Hoglund and Hosan (2013) demonstrated the distinctiveness between ethnic, relational, and physical peer victimization. Aboriginal and Asian students were found to report higher mean levels on ethnic peer victimization compared to Caucasian students, but there were no mean level differences on the other victimization scales. Finally, even more convincing empirical evidence resulted from the meta-analysis by Vitoroulis and Vaillancourt (2015) showing no differences between ethnic majority students and ethnic minority students in their experiences of general peer victimization. Ethnic minority students, however, displayed higher levels on ethnic peer victimization than ethnic majority students.

Predictors of Ethnic Peer Victimization

The occurrence of ethnic peer victimization has most often been associated with students' foreign nationality. In fact, studies documented that having another nationality than the majority in the student sample is related to an increased risk of being victimized (Garnett et al. 2014; Maynard et al., 2016; Strohmeier et al. 2011; Verkuyten, & Thijs, 2002).

However, there is some indication that nationality does not play the major role in predicting and explaining ethnic peer victimization, but that students' proficiency in the local language might be even more important. Based on the acculturation framework (Berry, 1997), integration of immigrant students is desirable according to which immigrant students participate within the new society while maintaining some degree of their original culture. The acquisition of the local language is an important task in the acculturation process

contributing to successful integration (Yu, Huang, Schwalberg, Overpeck, & Kogan, 2003). Conversely, the lack of local language skills indicates acculturation problems which may increase the risk of being victimized. In addition, according to Allport's (1954; see also Pettigrew & Tropp, 2006) contact hypothesis, contact and interactions between groups reduce prejudices. High levels of local language competence might help facilitate contact between groups, leading to reduced prejudice and weakening racial discrimination.

Accordingly, von Grünigen, Perren, Nägele, and Alsaker (2010) demonstrated that immigrant students suffered less from peer victimization and reported higher levels of peer acceptance when they had higher levels of competence in the local language. Similarly, in the study by Peguero (2008), low levels of English competencies enhanced the risk of experiencing property victimization, violent victimization, and of feeling unsafe at school within a sample of non-native English speaking Latino students. In the study by Messinger, Nieri, Villar, and Luengo (2012), among immigrant students being victimized, bilingual students (students speaking a mixture of the local language and their home language) constituted the largest group (11%), followed by students with little linguistic acculturation (i.e., predominantly sticking to their home language; 8%), and students rated as most linguistically acculturated (4%).

Gender is another predictor of peer victimization. Boys have been found to be more likely victims of peer victimization than girls when considering personal peer victimization (e.g., de Bruyn, Cillessen, & Wissink, 2010; Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001; Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999; Wolke et al., 2001) as well as when considering ethnic peer victimization (e.g., Chavous et al., 2008; Mendez, Bauman, Sulkowski, Davis, & Nixon, 2016; Niwa et al., 2014; Verkuyten & Thijs, 2002).

Outcomes of Ethnic Peer Victimization

Peer victimization has been found to be positively related to anxiety and depression as the prototypic internalizing problems. Accordingly, relative to non-victims, victims reported higher mean levels on overall anxiety (Espelage & Holt, 2001). When considering anxiety as a multidimensional construct consisting of different subtypes (Wei et al., 2014), students suffering from peer victimization were found to demonstrate higher levels of social anxiety (Graham & Juvonen, 2002), generalized anxiety (Hawker & Boulton, 2000), and school avoidance (Salmon, James, Cassidy, & Javaloyes, 2000). Being a victim of ethnic peer victimization also increases anxiety (Pascoe & Smart Richman, 2009) including generalized anxiety disorder (Soto, Dawson-Andoh, & BeLue, 2011). Peer victimization in general and ethnic peer victimization in particular have also been found to be positively related to depression (Benner et al., 2018; Espelage & Holt, 2001; Hawker & Boulton, 2000; Hunter, Durkin, Heim, Howe, & Bergin, 2010; Pascoe & Smart Richman, 2009; Priest et al., 2013).

Moreover, peer victimization has been found to be associated with some dimensions of students' self-perception, namely self-esteem and peer self-concept. Self-esteem is defined as students' general self-worth, self-acceptance, and self-respect unrelated to a specific domain (Rosenberg, 1979). Victims of peer victimization in general (Guerra, Williams, & Sadek, 2011) as well as victims of ethnic peer victimization (Benner et al., 2018; Niwa et al., 2014; Verkuyten & Thijs, 2006) show lower levels of self-esteem compared to non-victims. Peer self-concept addresses students' self-perceptions regarding the quality of their peer relations and thus reflects whether students think that they have many friends, and feel accepted and liked in their peer group (Byrne & Shavelson, 1996). Students suffering from peer victimization were found to not have many friends, be unpopular and isolated in class, have poor social skills, report higher levels of loneliness, and receive few friendship nominations (e.g., de Bruyn et al., 2010; Graham & Juvonen, 2002; Nansel et al., 2001). Accordingly, Marsh, Parada, Yeung, and Healey (2001) demonstrated lower levels of peer

self-concept for victims at school. Moreover, Niwa et al. (2014) found that students suffering from ethnic peer victimization were more likely to report lower best friendship quality than adolescents without any experiences of ethnic peer victimization.

The negative impact of ethnic peer victimization might be more severe than the impact of personal peer victimization. As outlined above, ethnic peer victimization is more pervasive and comprehensive in nature as it targets not only the student his/herself but also his/her social and cultural background (Eslea & Mukhtar, 2000; Scherr & Larson, 2010; Verkuyten & Thijs, 2006). Accordingly, Mendez et al. (2016) documented that the negative emotional impact of peer victimization was stronger when the focus was related to students' race or ethnicity relative to the impact of peer victimization with any other focus such as gender or looks. In the study by Monks et al. (2008), students experiencing verbal peer victimization targeting their cultural background reported higher levels of anger compared to students experiencing verbal peer victimization regarding personal characteristics. Hunter et al. (2010) presented eight descriptions of victimization behaviors to the students. The students were asked to indicate whether they had experienced one specific victimization behavior in the past two weeks and if so, whether this behavior was discriminatory in nature, that is, happened due to students' skin color or religion. Students who perceived the experienced victimization acts as discriminatory were found to report higher levels of threat compared to students who did not perceive their experienced victimization acts as discriminatory. Evidence of more severe consequences of ethnic peer victimization compared to personal peer victimization also emerged from the experimental study by Verkuyten and Thijs (2001). After students had read stories on ethnic peer victimization, they reported higher levels of negative emotional states than after the students had read stories on personal peer victimization.

The Present Study

In Germany, the number of students with an immigrant background is increasing (for instance from 10.5% in the 2016/2017 school year to 11.6% in the 2017/2018 school year; Statistisches Bundesamt, 2018). Given the negative impact of ethnic peer victimization on students' well-being (Pascoe & Smart Richman, 2009; Priest et al., 2013), research on its existence in Germany has gained importance. A study with German students did not find a higher risk for immigrant students to suffer from peer victimization than non-immigrant students (von Marées & Petermann, 2010). The study by Wolke et al. (2001), however, documented a slightly higher chance for immigrant students in Germany to get victimized by their peers. In both studies, only items targeting personal peer victimization were included so that these few existing studies could not adequately inform about ethnic peer victimization in Germany. In fact, the sole assessment of personal peer victimization with German students might have led to an underestimation of immigrant students' reports of peer victimization as incidents of ethnic peer victimization were not taken into account.

Based on the findings reported above, immigrant students were expected to show higher mean levels of ethnic peer victimization compared to non-immigrant students, while no mean level differences were expected for personal peer victimization. For empirically testing this, we applied latent profile analyses (LPA; Berlin et al., 2014; Hickendorff, Edelsbrunner, McMullen, Schneider, & Trezise, 2018). LPA is a person-centered approach which differs from variable-centered approaches. Variable-centered approaches focus on the relations among variables assuming that the findings similarly apply to all individuals. Person-centered approaches consider relations among individuals and assume that the data originate from a heterogeneous population consisting of homogenous subgroups.[1] Hence, person-centered approaches allow classifying students into subgroups of peer victimization – within subgroups, students report a similar pattern of peer victimization; across subgroups, students report different patterns of peer victimization. Person-centered approaches have already been

applied in research on peer victimization (Garnett et al., 2014; Goldweber et al., 2013). Goldweber et al. (2013) did not adequately investigate the co-occurrence versus differentiation of personal and ethnic peer victimization in immigrant students as they only included measures for personal peer victimization. Garnett et al. (2014) found that US students can be categorized into four subgroups with varying discrimination experiences: racial discrimination, intersectional (mixed-type) discrimination, sexual orientation discrimination, and low discrimination. Compared to Non-Hispanic White students, Asian/Pacific Islander students and Hispanic students had a higher chance to belong to the student group experiencing racial discrimination. Hence, the results from this study using a person-centered approach match the findings from the above mentioned studies using the variable-centered approach, indicating that immigrant students face a particular risk of ethnic peer victimization compared to other forms of peer victimization.

In our study, we used an LPA to examine whether immigrant students in Germany are at a higher risk of experiencing ethnic peer victimization compared to non-immigrant students while not differing in their experiences of personal peer victimization. This would mean finding a subgroup of students characterized by a particularly high mean level of ethnic peer victimization. Moreover, this subgroup is expected to differ from other student subgroups with different patterns of personal and ethnic peer victimization. We further analyzed the predictors and outcomes of students' membership to subgroups of different patterns of peer victimization. Regarding predictors, we simultaneously considered students' nationality (German vs. non-German), native language (German vs. non-German), and gender to examine the role of each predictor while controlling for the others. We could thus scrutinize whether students' nationality or native language serves better to predict students' belongingness to a subgroup experiencing particularly high levels of ethnic peer victimization. Regarding outcomes, we considered anxiety and depression as the prototypic internalizing problems, and

also included students' self-esteem and peer self-concept. For anxiety and depression, we applied both student and parent ratings to cross-validate our findings across multiple informants (De Los Reyes et al., 2015). Moreover, we pursued a fine-grained approach to anxiety considering panic disorder, generalized anxiety disorder, separation anxiety, social anxiety, and school avoidance (Birmaher et al., 1999). Ethnic peer victimization was expected to be associated with more severe consequences than personal peer victimization, given the more comprehensive and pervasive nature of ethnic peer victimization (Eslea & Mukhtar, 2000; Scherr & Larson, 2010; Verkuyten & Thijs, 2006).

Method

Sample and Procedure

The data analyzed in our study were retrieved from a large online study funded by the German Federal Ministry of Education and Research (BMBF). The aim of this study was to examine the incidence of psychopathological problems in children with learning difficulties. The study was approved by the ethics committees of the [blinded for review purposes]. A random sample of over 50,000 families in the two German federal states of Hesse and Bavaria were invited to participate in the study via the Hessian Ministry of Culture and local registration offices in Bavaria. Upon consent to participate, both parents and students were requested to fill in questionnaires and achievement tests. A randomly created code was used to match the parent and student responses and to anonymize the data. The parents and students were informed about the confidential and anonymous treatment of their data as well as about their voluntary participation in the study. The study took place in May to June 2017.

In total, 4,542 families participated in the study. To create the sample analyzed in the study presented here, only one student per sibling pair was randomly retained. In addition, students who did not complete any item regarding peer victimization experiences were not included in the final sample. The sample of the present study consisted of 4,367 students

(M_{age}=9.9 years; *SD*=7 months) with 2,284 (52.3%) boys and 2,083 (47.7%) girls. A number of 1,981 (45.4%) students attended grade 3, and *N*=2,386 (54.6%) students attended grade 4.[2] The majority of students (*N*=3,478; 79.6%) had German as their native language, while *N*=438 (10.0%) students had another native language than German [missing values on students' native language: *N*=451 (10.3%)]. A number of *N*=3,646 (83.5%) students was of German nationality, and *N*=223 (5.1%) students had a non-German nationality [missing values on students' nationality: *N*=498 (11.4%)].[3] Among the students of non-German nationality, those from Italy (6.3%), Turkey (6.3%), Poland (4.9%), and Russia (4.5%) constituted the largest groups. Students' nationality and native language were confounded as students with a German nationality were often also native German speakers, while students with a non-German nationality mostly had another native language than German. Still, there were some students with German as a native language but without German nationality (*N*=71), and students with German nationality but with another language than German as the native language (*N*=268; Table S1 of the Online Supplements).

Measures

Peer victimization. Nine self-report items were applied to measure peer victimization. These items were retrieved from a slightly adapted version of the short form of the German version of the Revised Olweus Bullying Questionnaire (OBQ, Bull, Schultze, & Scheithauer, 2009; Olweus, 2010). Among the nine items used here, one item ("I was called mean and hurtful names about my colour or race") addressed ethnic peer victimization, while the other eight items related to personal peer victimization (Table S2 of the Online Supplements). The students were asked to indicate how often they had experienced the form of peer victimization specified in an item during the last four weeks on a five-point Likert scale with the response options "never", "once or twice", "twice or three times", "once a week", "many times a week". The single items were used as indicators to extract the latent profiles (see below).

Anxiety. Students' anxiety was measured by the SCARED instrument (Mittenzwei, 2013) which is available as a student version (SV) and a parent version (PV). In this instrument, five types of anxiety are differentiated and the scales for each subtype consist of differing numbers of items: panic disorder (13 items, SV: α=.795, PV: α=.744), generalized anxiety disorder (9 items, SV: α=.798, PV: α=.842), separation anxiety (8 items, SV: α=.765, PV: α=.751), social anxiety disorder (7 items, SV: α=.747, PV: α=.850), and school avoidance (4 items, SV: α=.523, PV: α=.664). The response scale of the instrument consists of a three-point Likert scale whereby the students or the parents have to indicate the intensity of how one item applies to themselves or to their children, respectively.

Depression. For students' self-reports, we used the Children's Depression Screener (ChilD-S) which has been developed in Germany for screening children in pediatric care (Frühe et al., 2012). The students were asked to respond to eight items on a four-point Likert scale (α=.694). For parent reports on students' depression, we used the FFB-DES as the parent assessment of the Diagnostic System of Mental Disorders for Children and Adolescents–II (Döpfner, Görtz-Dorten, & Lehmkuhl, 2008). The FFB-DES consists of 28 items (α=.884). For each item, the parents had to indicate whether a certain description applied to their child on a four-point Likert scale.

Self-esteem. Students' self-esteem was measured by the three-item self-esteem scale of the short German version of the Self Description Questionnaire (SDQ I-GS; Arens, Yeung, Craven, & Hasselhorn, 2013). The students responded to the item statements on a five-point Likert scale ranging from true to false (α=.721).

Peer self-concept. Students' peer self-concept was measured by the respective three-item scale of the SDQ I-GS (Arens et al., 2013). Students responded to the items on the same five-point Likert scale as used for the self-esteem scale (α=.834).

Statistical Analyses

The analyses were conducted in Mplus Version 8.2 (Muthén & Muthén, 1998–2017). In a first step, we examined the number of groups (profiles) based on the responses to the nine items of the German OBQ. We estimated different models by stepwise increasing the number of profiles assumed. To compare models with k profiles to models with (k-1) profiles, we considered the Vuong-Lo-Mendell-Rubin (VLMR) test and the Bootstrap-Likelihood-Ratio Test (BLRT). For both tests, significant *p*-values indicate a significant improvement of model fit for the k model, that is, argue for a more complex model including one additional profile. Moreover, to select the optimal number of profiles, we looked at information criterion indices including the Akaike's Information Criterion (AIC), Schwarz's Bayesian Information Criterion (BIC), and the Sample-size adjusted Bayesian Information Criterion (SABIC). Smaller values of information criteria imply better model fit (Geiser, 2011). Hence, the selection of the best model with the optimal number of profiles relied on a simultaneous consideration of multiple criteria. Nylund, Asparouhov, and Muthén (2007) recommended considering the results of the BLRT, the BIC, and the SABIC as the three main criteria for model selection. Still, a certain degree of subjectivity remains when deciding for or against a model with a selected number of profiles (Marsh, Lüdtke, Trautwein, & Morin, 2009).

In order to avoid local maxima but to ensure that the log-likelihood values had reached global maxima, all models were conducted using 500 random sets of starting values for initial stage optimization, and 50 random sets of starting values for final stage optimization, along with 50 iterations (Geiser, 2011). To further ensure the avoidance of local maxima in the selected model, we replicated it using different random sets of starting values (Hipp & Bauer, 2006). Additional quality checks of the selected model addressed the consideration of the posterior class membership probabilities which should be above 0.70, and the examination of the entropy as an overall summary measure of classification adequacy which should be above .80 (Wang & Wang, 2012).

In a second step, we examined whether the profile membership could be predicted by gender, native language, and nationality. Moreover, we analyzed whether the profiles were differentially related to various outcome variables. We created mean scale scores for the scales related to the outcome variables [i.e., the multiple facets of anxiety (both student and parent reports), depression (both student and parent reports), self-esteem, and peer self-concept]. Higher mean levels reflected higher levels of anxiety, depression, self-esteem, and peer self-concept. The three-step approach was applied to examine predictors and outcomes of profile membership (Asparouhov & Muthén, 2014). Separate models were conducted using gender, native language, and nationality as predictor variables, before integrating all three predictor variables simultaneously. In the three-step approach for prediction, listwise deletion is used to handle missing data.[4]

Results

Number of Profiles

Table 1 depicts the findings of the series of models assuming one to five profiles. All information criteria constantly declined when assuming increasingly more profiles. The BLRT indicated a superior fit of a two-profile model relative to a one-profile model, of a three-profile model relative to a two-profile model, of a four-profile model relative to a three-profile model, and even of a five-profile model relative to a four-profile model. Hence, both based on the information criteria and the BLRT, four or even five profiles could be maintained. However, the four-profile and five-profile solutions resulted in profiles consisting of a small number of students only [four-profile solution: *N*=141 (0.03%), *N*= 3938 (0.90%), *N*= 236 (0.05%), and *N*=52 (0.01%); five-profile solution: *N*=3734 (0.86%), *N*=54 (0.01%), *N*=215 (0.05%), *N*=318 (0.07%), and *N*=46 (0.01%)], so that these solutions did not meet the requirement of, and call for, a parsimonious solution with a small number of profiles. The selection of models with a small number of profiles protects against the occurrence of local

maxima (Geiser, 2011) and secures the maintenance of interpretable and meaningful profiles (Hickendorff et al., 2018). Moreover, the four-profile and five-profile solutions included warnings regarding potential untrustworthy standard errors which might indicate model nonidentification. Other than the information criteria and the BLRT, the VLMR test argued for a three-profile solution given the non-significant *p*-value when comparing a three-profile solution to a four-profile solution. Given these findings and the mentioned problems associated with the four-profile and five-profile solutions, we retained the three-profile solution.

In the three-profile solution, the posterior profile membership probabilities were high: 1.0 for Profile 1, 0.998 for Profile 2, and 0.977 for Profile 3. The entropy of the three-profile solution was 0.993. We could further ensure that the three-profile solution had reached global maximum and that the solution was not biased by local maxima, since the highest log-likelihood value was replicated 47 times among the 50 highest log-likelihood values. We could finally replicate the results of the three-profile solution with different sets of random starting values.

Profile 1 (*N*=79, 1.81%, “personal and ethnic peer victimization”) consisted of students who experienced frequent peer victimization given their relatively high average responses to all items, while they particularly suffered from ethnic peer victimization given the high mean ratings on item 9 (Figure 1). Profile 2 (*N*=4,031, 92.31%, “non-victims”) consisted of students with low mean scores on all items. Therefore, students belonging to this profile did not experience any form of peer victimization. Profile 3 (*N*=257, 5.89%, “personal peer victimization”) encompassed students suffering from personal peer victimization given their high average scores on items 1 to 8, but not experiencing ethnic peer victimization given their low mean scores on item 9.

Predictor Variables

The results from the analyses using the three predictor variables (gender, native language, and nationality) separately can be found in Table S3 of the Online Supplements. Here, we only report the findings of a model using the three variables simultaneously to predict profile membership (Table 2).

The likelihood of belonging to Profile 2 (non-victims) relative to Profile 1 (personal and ethnic peer victimization), and the likelihood of belonging to Profile 3 (personal peer victimization) relative to Profile 1 was higher for students with German as a native language compared to students without German as a native language (Table 2). Students without German as a native language were more likely to be allocated to Profile 1 relative to Profile 2 and to Profile 1 relative to Profile 3 than native German-speaking students.[5] Students' native language was not related to the probability to belong to Profile 2 relative to Profile 3 and vice versa (Table 2).

The probability to belong to Profile 3 (personal peer victimization) relative to Profile 2 (non-victims) was higher for boys than for girls, while the probability to belong to Profile 2 rather than to Profile 3 was higher for girls compared to boys. No other significant results with respect to gender were found. Students' nationality was not related to the probability of profile membership (Table 2).

Outcome Variables

Student reports. Victims of personal and ethnic peer victimization (Profile 1) or victims of personal peer victimization only (Profile 3) had higher mean levels on panic disorder than students without experiences of peer victimization (Profile 2; Table 3). The two victim groups (Profile 1 and Profile 3) did not differ from each other in the level of panic disorder. A similar pattern of findings was found for generalized anxiety disorder, social anxiety, and depression as reported by the students (Table 3).

With respect to separation anxiety, the students from all three profiles significantly differed from each other, with Profile 1 students (personal and ethnic peer victimization) showing the highest level, and Profile 2 students (non-victims) showing the lowest mean level. Students' ratings on school avoidance also differed among students from all three profiles. Here, Profile 3 students (personal peer victimization) displayed the highest mean level, while Profile 2 students had the lowest mean level (Table 3).

Regarding self-esteem and peer self-concept, students who were victims of personal and ethnic peer victimization (Profile 1) or victims of personal peer victimization (Profile 3) had lower mean levels compared to students without experiences of peer victimization (Profile 2). The two groups of victims (Profile 1 and Profile 3) did not differ from each other regarding the levels of self-esteem and peer self-concept (Table 3).

Parent reports. Parents reported higher mean levels on panic disorder, generalized anxiety disorder, separation anxiety, and depression for Profile 1 students (personal and ethnic peer victimization) and for Profile 3 students (personal peer victimization) compared to students from Profile 2 (non-victims). Parent reports on panic disorder, generalized anxiety disorder, separation anxiety, and depression did not differ between Profile 1 and Profile 3 students (Table 3).

Parents reported higher mean levels of social anxiety for Profile 1 students (personal and ethnic peer victimization) compared to Profiles 2 (non-victims) and 3 (personal peer victimization) students. Students from Profiles 2 and 3 did not differ in their mean levels of parent-reported social anxiety (Table 3). Parent-reported mean levels of school avoidance differed across students from all three profiles; they were the highest for Profile 3 students (personal peer victimization) and the lowest for Profile 2 students (non-victims; Table 3).

Discussion

Personal and Ethnic Peer Victimization

In this study, we applied an LPA to investigate whether German elementary school students can be classified into subgroups with different experiences of peer victimization. The findings supported a three-profile solution according to which students belonged to a group of non-victims, suffered from personal peer victimization only, or suffered a combination of personal peer victimization and ethnic peer victimization. We did not find a subgroup of students only suffering from ethnic peer victimization but not from personal peer victimization. This contradicts findings from variable-centered studies showing the distinctiveness between personal and ethnic peer victimization (e.g., Hoglund & Hosan, 2013). Maybe, we did not find this differentiation when using LPA here due to the high overlap between the two forms of peer victimization (Eslea & Mukhtar, 2000; Hoglund & Hosan, 2013; Strohmeier et al., 2011; Rodríguez-Hidalgo et al., 2019). Still, it should be noted that the students from Profile 1 (personal and ethnic peer victimization) displayed particularly high mean scores on the item tapping ethnic peer victimization. For students of this subgroup, experiences of ethnic peer victimization might be particularly salient and thus more easily remembered or reported. In addition, these students might indeed experience ethnic peer victimization more frequently, with incidents of personal peer victimization experienced as a side issue. Hence, this profile might substitute the expected but not empirically found subgroup of students only experiencing ethnic peer victimization, but not personal peer victimization. The experiences of ethnic peer victimization might be so severe that they invoke a general feeling of being victimized. Hence, experiences of personal peer victimization and ethnic peer victimization might overlap and blend for some students, but other students only suffer from personal peer victimization.

Predictors of Profile Membership

Non-native German-speaking students were more likely than native German speakers to experience a combination of personal and ethnic peer victimization than to only experience

personal peer victimization or no victimization at all. Students' language was not associated with the risk of suffering from personal peer victimization relative to not suffering from peer victimization at all. This finding again documents the separation of student subgroups with different patterns of peer victimization given the differential predictors. More concretely, this finding underlines the separation between pure forms of personal peer victimization and a form of personal peer victimization that is complemented by ethnic peer victimization. The finding that native language only matters for the risk of experiencing a combination of personal and ethnic peer victimization matches the implications of previous studies that local language competence lowers peer victimization of immigrant students (von Grünigen et al., 2010; Messinger et al., 2012; Peguero. 2008), and corresponds to the assumptions made by contact theory (Allport, 1954) and the acculturation framework (Berry, 1997).

When students' native language and nationality were considered simultaneously as predictors, nationality was not related to profile membership probability. When, however, only examining student nationality as a predictor of profile membership, that is, when not including language (see Table S3 of the Online Supplements), non-German students had a higher chance to experience combined personal and ethnic peer victimization than to experience personal peer victimization only or no victimization at all. This finding corresponds to the findings from previous studies hinting at a higher chance to suffer from ethnic peer victimization when belonging to an ethnic minority group (Garnett et al. 2014; Maynard et al., 2016; Strohmeier et al., 2011; Verkuyten, & Thijs, 2002). However, against the background of our findings, the findings of these previous studies might be due to the confounding of nationality and native language.

Boys, relative to girls, were found to more likely experience personal peer victimization than to be non-victims. This result matches findings from previous studies – including studies with German students – demonstrating higher rates of peer victimization for

boys (de Bruyn et al., 2010; Espelage & Holt, 2001; Wolke et al., 2001). Boys and girls did not differ in their likelihood of being victims of combined personal and ethnic peer victimization compared to being non-victims or being victims of personal victimization. This finding counteracts conclusions from studies showing that boys were also more likely to suffer from ethnic peer victimization compared to girls (Chavous et al., 2008; Mendez et al., 2016; Niwa et al., 2014; Verkuyten & Thijs, 2002). Future studies including qualitative and mixed-method studies to comprehend students' experiences and understanding of the items might help to resolve this unexpected outcome (e.g., Guerra et al., 2011).

Outcomes of Profile Membership

Overall, our findings replicated the conclusion from previous studies that peer victimization bears negative consequences for the students (Espelage & Holt, 2001; Hawker & Boulton, 2000; Pascoe & Smart Richman, 2009; Priest et al., 2013). Students experiencing peer victimization – either only in its personal form or in its combined ethnic and personal form – reported higher levels of anxiety and depression, and lower levels of self-esteem and peer self-concept compared to students without victimization. The positive relation between peer victimization and anxiety concerned all five subtypes of anxiety considered and was found irrespective of whether anxiety was reported by the students themselves or by their parents (with the exception of parent-reported social anxiety). The finding for depression was also replicated when using both student and parent reports. Therefore, our findings match previous findings showing negative consequences of peer victimization but extended them using a more fine-grained approach to anxiety, and integrating multiple informants such as parents and students.

Victims of ethnic peer victimization were assumed to suffer from more severe consequences than victims of personal peer victimization. This assumption was hard to test since we did not find a profile of students that clearly only suffered from ethnic, but not from

personal peer victimization. Still, students suffering from both personal peer victimization and ethnic peer victimization showed higher levels of separation anxiety than students suffering from personal peer victimization only. Hence, this finding indicated that students of the combined form of personal and ethnic peer victimization suffer from more negative consequences than students with personal peer victimization only. Yet, this finding only applied to the student reports of separation anxiety. In general, our findings rather indicated that the profile of students suffering from ethnic peer victimization in addition to personal peer victimization does not differ from the profile of students only experiencing personal peer victimization with respect to the different outcome variables. In other words, our findings argue more for similarity than for differences of personal and ethnic peer victimization in terms of student outcomes. The added experience of ethnic peer victimization does not seem to strengthen negative student outcomes.

One exception could be observed for school avoidance. Students suffering from personal peer victimization were found to display higher levels of (both student-reported and parent-reported) school avoidance compared to students suffering from both personal and ethnic peer victimization and compared to students without peer victimization experiences. This result might relate to the finding that personal peer victimization often particularly happens in the classroom or its surroundings (playground, going from/to school) which might lead to school avoidance (Sapouna, 2008; Wolke et al., 2001). Ethnic peer victimization, in contrast, is not restricted to the school context, but can take place in many contexts and daily activities (Fisher, Wallace, & Fenton, 2000; see also Chavous et al., 2008; Niwa et al., 2014). Moreover, ethnic peer victimization can originate from different sources and can take place on different levels (individual student vs. society level) (Benner & Graham, 2013; Priest et al., 2013). Hence, even when the students were explicitly asked for their experiences of ethnic peer victimization in this study, they might have mixed experiences of ethnic victimization in

different locations, from different sources, and on different levels. Therefore, the added experience of ethnic peer victimization does not particularly lead to school avoidance. Still, these findings should not be over-interpreted given the low reliabilities of the school avoidance scales.

Limitations and Directions for Future Research

Given the voluntary participation in the study, the sample was selective including an overrepresentation of students from well-educated families. Victims of personal and ethnic peer victimization could thus have been underrepresented given the found negative relation between socioeconomic status and peer victimization (Tippett & Wolke, 2014). Owing to the low number of non-German students, we could not further differentiate among students from different nationalities or between first-generation and second-generation immigrant students in order to examine whether one group of immigrant students is at particular risk of ethnic peer discrimination or to consider ethnic peer victimization within the group of immigrant students (McKenney et al., 2006; Tolsma, van Deurzen, Stark, & Veenstra, 2013).

Only a single item was used to operationalize ethnic peer victimization. This single item addressed a verbal form of ethnic peer victimization; verbal victimization has been shown to be the most frequent and common form of ethnic peer victimization (Monks et al., 2008; Verkuyten &Thijs, 2002) and peer victimization in general (Wang, Iannotti, & Nansel, 2009; Wolke et al., 2001). Still, racial discrimination can also become apparent in physical and indirect forms. Therefore, further studies should employ scales which tap the construct of ethnic peer victimization in a broader way (e.g., Chavous et al., 2008; Mendez et al., 2016; Monks et al., 2008). Finally, students' peer victimization experiences were only assessed via self-reports. Multiple informants including reports and nominations by peers, parents, and teachers might help complement the reliable and valid assessment of personal and ethnic peer victimization (e.g., Espelage & Holt, 2001).

More research seems to be necessary to examine the phenomena, underlying process and mechanisms of personal and ethnic peer victimization. First, researchers should investigate whether other variables than student characteristics (i.e., gender, native language, and nationality as considered in this study) influence the occurrence of peer victimization. For instance, societal stereotypes or heterogeneity versus homogeneity of the society or classroom might be related to the incidence of ethnic peer victimization (e.g., Tolsma et al., 2013). Second, regarding the outcomes of ethnic and person peer victimization, future studies should consider moderating and mediation effects. Regarding moderation, for instance, social support and friendships have been found to buffer the negative outcomes of peer victimization (Benner & Wang, 2017). Regarding mediation, the role of stress and emotional states should be examined as these might be the linking processes between experiences of peer victimization and negative outcomes (Pascoe & Smart Richman, 2009). Finally, our study was only cross-sectional in nature. Longitudinal studies are needed to investigate the stability of the found profiles, and the occurrence and long-term effects of personal and ethnic peer victimization over the school years (e.g., Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Sentse, Prinzie, & Salmivalli, 2017).

Summary and Conclusion

This study documented that German elementary school students differ in their experiences of personal and ethnic peer victimization. Personal peer victimization can occur in a pure form as well as in combination with ethnic peer victimization. Having another language than German as the native language was found to enhance the risk of experiencing the combined form of ethnic and personal peer victimization. Therefore, supporting immigrant students to gain high levels of local language competence might be a promising way to protect them from ethnic peer victimization. Besides differential prediction by native language, both forms of peer victimization were found to bear negative consequences on

students' internalizing problems and self-perceptions. This might be due to the consistent negative consequences of peer victimization; irrespective of whether personal peer victimization co-occurs with ethnic peer victimization, it entails negative consequences (Espelage & Holt, 2001). Students might be prone to suffer and to react with negative consequences as soon as some part of them (personal characteristics or their ethnic background) is threatened. Hence, the findings of this study indicate that researchers and practitioners should create prevention and intervention strategies targeting peer victimization in general.

Our findings generally did not implicate differences between personal and ethnic peer victimization in terms of outcomes. Still, our findings do not preclude that the combined form of personal and ethnic peer victimization is associated with more severe consequences than personal peer victimization when considering outcome variables not included in our study, (such as externalizing behavior; Priest et al., 2013) or when considering a subgroup of students only experiencing ethnic peer victimization which could not be found here. Our study thus paves the way for future research on personal and ethnic peer victimization with immigrant and non-immigrant students. For this purpose, the here applied person-centered approach seems to be promising as it extends previous studies using the variable-centered approach and allows revealing subgroups of students with similar patterns of different types of peer victimization. Longitudinal studies are also needed as well as qualitative and mixed-method studies, the latter particularly enabling to discern students' experiencing and feelings on an individual level.

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Endnotes

[1] Beyond latent profile analyses (LPA), latent class analyses (LCA) are person-centered approaches. LPA base on continuous items used as indicators to determine group membership; LCA base on dichotomous indicators used to determine group membership.

[2] As an indicator for socioeconomic status, we asked the parents for their educational background. A number of 88 (2.0%) [100 (2.3%)] students had a mother (father) without school leaving certificate, while *N*=279 (6.4%) [*N*=401 (9.2%)] students had a mother (father) with graduation from vocational secondary school. A number of *N*=880 (20.2%) [*N*=692 (15.8%)] students had a mother (father) with graduation from intermediate secondary school, *N*=476 (10.9%) [*N*=588 (13.5%)] students had a mother (father) with applied university entry qualification, and *N*=2,193 (50.2%) [*N*=2,135 (48.9)] students had a mother (father) with higher education entry qualification. For *N*=451 (10.3%) [*N*=451 (10.3%)] there was no valid information on mothers' or fathers' education.

[3] We only considered students with only a foreign nationality as non-German students. Students with dual citizenship (German and another nationality; *N*=236) were included in the sample of German students.

[4] Due to missing data, *N*=451 students were not considered when examining native language as a predictor, *N*=498 students were not integrated in the analyses using students' nationality as a predictor, and *N*=498 students were not included when examining gender, native language, and nationality simultaneously.

[5] Here, the beta coefficient for the prediction was significant (b=1.493, *p*=0.000), while the odds ratio marginally failed to reach significance (OR=4.451, *p*=0.052). Yet, the 95% confidence interval [2.307; 8.587] did not include 1. Moreover, since the odd ratio depicts effect size, while the beta coefficient depicts differences in the probability of profile membership, we interpreted this finding.

Table 1

Results from the Latent Profile Analytic Models

Number of profiles	Loglikelihood	Number of free parameters	AIC	BIC	SABIC	VLMR (*p*-value)	BLRT (*p*-value)
1	-39367.814	18	78771.627	78886.500	78829.304	na	na
2	-33649.052	28	67354.104	67532.795	67443.822	0.0000	0.0000
3	-30913.226	38	61902.451	62144.961	62024.212	0.0049	0.0000
4	-27983.666	48	56063.331	56369.659	56217.135	0.2856	0.0000
5	-26783.013	58	53682.026	54052.172	53867.872	0.6037	0.0000

Note. AIC=Akaike‘s Information Criterion; BIC=Schwarz‘s Bayesian Information Criterion; SABIC=Sample-size adjusted Bayesian Information Criterion; VLMR=Vuong-Lo-Mendell-Rubin Test; BLRT=Bootstrap-Likelihood-Ratio Test.

Table 2

Regression Coefficients (with Standard Errors in Parentheses and 95% Confidence Interval), and Odds Ratios (with Standard Errors in Parentheses and 95% Confidence Interval) for the Analyses Including the Three Predictors Simultaneously

		Gender (0=male, 1=female)	Native Language (0=German, 1=Non-German)	Nationality (0=German, 1=Non-German)
Reference Group: Profile 1				
Predictor → Profile 2	b	0.237 (0.272) [-0.211; 0.685]	-1.787 (0.333)* [-2.334; -1.240]	-0.015 (0.452) [-0.759; 0.729]
	OR	1.268 (0.345) [0.810; 1.984]	0.167 (0.056)* [0.097; 0.289]	0.985 (0.445) [0.468; 2.073]
Predictor → Profile 3	b	-0.139 (0.305) [-0.641; 0.363]	-1.493 (0.399)* [-2.150; -0.836]	0.068 (0.540) [-0.820; 0.957]
	OR	0.870 (0.266) [0.527; 1.438]	0.225 (0.090)* [0.116; 0.433]	1.071 (0.578) [0.440; 2.603]
Reference Group: Profile 2				
Predictor → Profile 1	b	-0.237 (0.272) [-0.685; 0.211]	1.787 (0.333)* [1.240; 2.334]	0.015 (0.452) [-0.729; 0.759]
	OR	0.789 (0.215) [0.504; 1.235]	5.973 (1.987)* [3.456; 10.323]	1.015 (0.459) [0.482; 2.137]
Predictor → Profile 3	b	-0.376 (0.147)* [-0.618; -0.134]	0.294 (0.239) [-0.099; 0.687]	0.083 (0.320) [-0.444; 0.610]
	OR	0.687 (0.101)* [0.539; 0.875]	1.342 (0.321) [0.906; 1.988]	1.087 (0.348) [0.642; 1.841]
Reference Group: Profile 3				
Predictor → Profile 1	b	0.139 (0.305) [-0.363; 0.641]	1.493 (0.399)* [0.836; 2.150]	-0.068 (0.540) [-0.957; 0.820]
	OR	1.149 (0.351) [0.695; 1.899]	4.451 (1.778) [2.307; 8.587]	0.934 (0.505) [0.384; 2.272]
Predictor → Profile 2	b	0.376 (0.147)* [0.134; 0.618]	-0.294 (0.239) [-0.687; 0.099]	-0.083 (0.320) [-0.610; 0.444]
	OR	1.456 (0.214)* [1.143; 1.856]	0.745 (0.178) [1.558; 1.104]	0.920 (0.295) [0.543; 1.558]

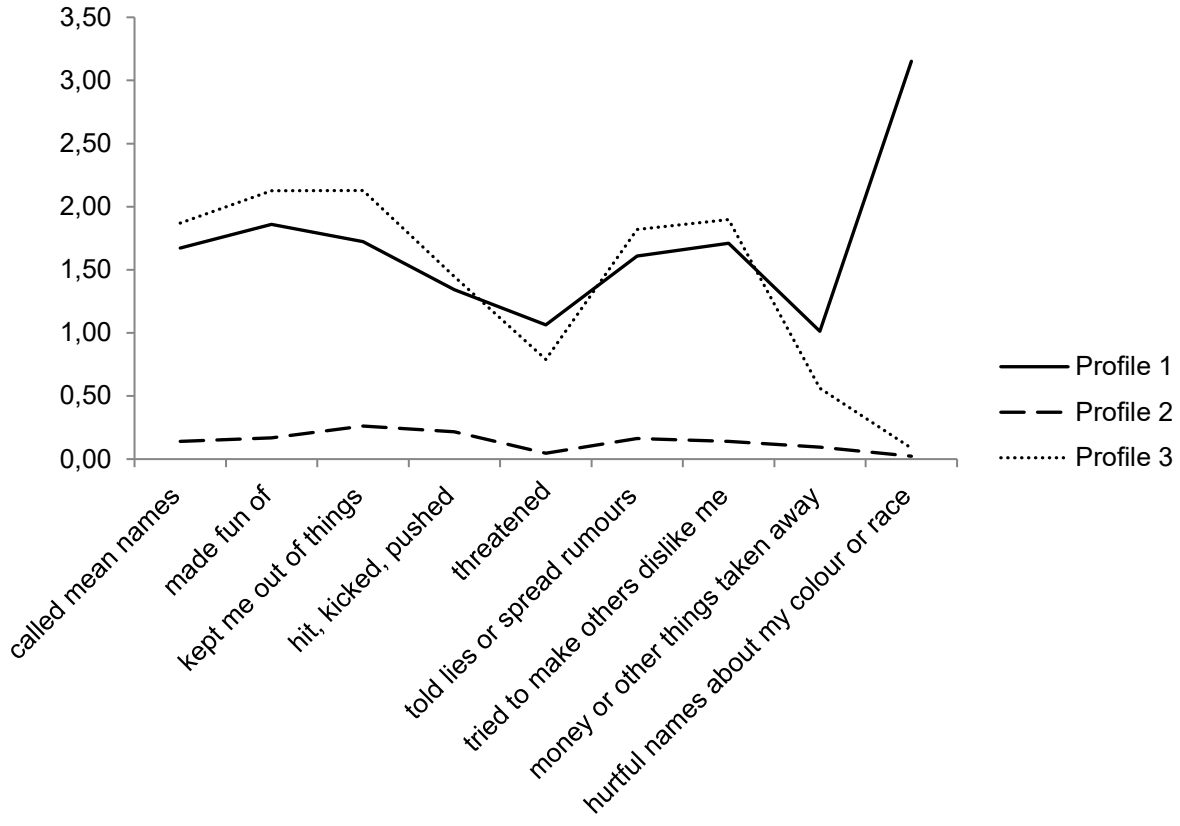
Note. * $p<.05$.

Table 3

Findings for the Outcome Variables

Outcome	Mean Scale Scores and Standard Deviations in Parentheses			χ^2 (p-value)		
	Profile 1	Profile 2	Profile 3	Profile 1 vs. Profile 2	Profile 1 vs. Profile 3	Profile 2 vs. Profile 3
Panic disorder (student rating)	0.566 (0.062)	0.247 (0.005)	0.585 (0.034)	26.667 (p=0.000)	0.074 (p=0.786)	88.786 (p=0.000)
Generalized anxiety disorder (student rating)	0.807 (0.065)	0.453 (0.006)	0.743 (0.035)	29.784 (p=0.000)	0.755 (p=0.385)	65.235 (p=0.000)
Separation anxiety (student rating)	1.026 (0.071)	0.598 (0.007)	0.859 (0.033)	36.496 (p=0.000)	4.565 (p=0.033)	58.103 (p=0.000)
Social anxiety (student rating)	0.871 (0.058)	0.659 (0.007)	0.745 (0.036)	13.172 (p=0.000)	3.421 (p=0.064)	5.607 (p=0.018)
School avoidance (student rating)	0.382 (0.059)	0.145 (0.006)	0.562 (0.038)	15.870 (p=0.000)	6.567 (p=0.010)	103.786 (p=0.000)
Depression (student rating)	1.012 (0.083)	0.610 (0.008)	0.976 (0.047)	22.962 (p=0.000)	0.140 (p=0.708)	56.483 (p=0.000)
Peer self-concept (student rating)	3.472 (0.133)	4.072 (0.013)	3.227 (0.075)	20.066 (p=0.000)	2.582 (p=0.108)	119.943 (p=0.000)
Self-esteem (student rating)	3.713 (0.103)	4.048 (0.011)	3.624 (0.058)	10.417 (p=0.001)	0.572 (p=0.450)	50.608 (p=0.000)
Panic disorder (parent rating)	0.262 (0.047)	0.066 (0.002)	0.332 (0.018)	17.009 (p=0.000)	1.873 (p=0.171)	198.358 (p=0.000)
Generalized anxiety disorder (parent rating)	0.635 (0.061)	0.410 (0.006)	0.684 (0.036)	13.528 (p=0.000)	0.488 (p=0.485)	52.869 (p=0.000)
Separation anxiety (parent rating)	0.593 (0.051)	0.330 (0.006)	0.483 (0.047)	26.676 (p=0.000)	2.549 (p=0.110)	9.161 (p=0.002)
Social anxiety (parent rating)	0.688 (0.063)	0.513 (0.008)	0.501 (0.034)	7.523 (p=0.006)	6.689 (p=0.010)	0.103 (p=0.748)
School avoidance (parent rating)	0.318 (0.064)	0.060 (0.003)	0.511 (0.026)	16.372 (p=0.000)	7.939 (p=0.005)	302.800 (p=0.000)
Depression (parent rating)	0.584 (0.069)	0.152 (0.004)	0.550 (0.026)	38.736 (p=0.000)	0.206 (p=0.650)	228.349 (p=0.000)

Figure 1. Three-Profile Solution



Online Supplements to

„Personal peer victimization and ethnic peer victimization: Findings on their co-occurrence, predictors, and outcomes from a latent profile analysis"

Table S1

Cross-Tabulation of Frequencies of Students Contingent upon Their Native Language and Nationality

	German native language – yes	German native language – no
German nationality – yes	3378	268
German nationality – no	71	152

Table S2

English Translations and German Originals in Parentheses of the Used Items to Measure Peer Victimization in the Present Study

1	I was called mean names (... wurde ich hässlich beschimpft).
2	I was made fun of and teased in a hurtful way (... hat man sich in gemeiner Weise über mich lustig gemacht und mich gehänselt).
3	Other students kept me out of things on purpose, excluded me from their group of friends or completely ignored me (... haben andere Schüler mich absichtlich nicht mitmachen lassen und mich ausgeschlossen).
4	I was hit, kicked, pushed or shoved around (... wurde ich geschlagen, getreten oder herumgeschubst).
5	I was threatened (... wurde ich bedroht).
6	Other students told lies or spread rumours about me (... haben andere Schüler über mich Lügen und Gerüchte verbreitet).
7	Other students tried to make others dislike me (... haben andere Schüler versucht, mich bei den Anderen unbeliebt zu machen).
8	I had money or other things taken away from me or damaged (... wurde mir Geld geklaut, Sachen weggenommen oder beschädigt).
9	I was called mean and hurtful names about my colour or race (... wurde ich wegen meiner Hautfarbe oder Herkunft hässlich beschimpft).

Table S3

Regression Coefficients (with Standard Errors in Parentheses and 95% Confidence Interval), and Odds Ratios (with Standard Errors in Parentheses and 95% Confidence Interval) for the Separate Analyses for Each Predictor

		Gender (0 = male, 1 = female)	Native Language (0 = German, 1 = Non-German)	Nationality (0 = German, 1 = Non-German)
Reference Group: Profile 1				
Predictor → Profile 2	b	0.215 (0.229) [-0.162; 0.592]	-1.817 (0.263)* [-2.250; -1.385]	-1.163 (0.371)* [-1.773; -0.554]
	OR	1.240 (0.284) [0.850; 1.808]	0.162 (0.043)* [0.105; 0.250]	0.312 (0.116)* [0.170; 0.575]
Predictor → Profile 3	b	-0.180 (0.262) [-0.612; 0.252]	-1.509 (0.326)* [-2.045; -0.972]	-0.926 (0.454)* [-1.674; -0.179]
	OR	0.835 (0.219) [0.542; 1.286]	0.221 (0.072)* [0.129; 0.378]	0.396 (0.180)* [0.188; 0.836]
Reference Group: Profile 2				
Predictor → Profile 1	b	-0.215 (0.229) [-0.592; 0.162]	1.817 (0.263)* [1.385; 2.250]	1.163 (0.371)* [0.554; 1.773]
	OR	0.806 (0.185) [0.553; 1.176]	6.155 (1.619)* [3.993; 9.487]	3.201 (1.186) [1.740; 5.888]
Predictor → Profile 3	b	-0.395 (0.135)* [-0.618; -0.172]	0.309 (0.208) [-0.034; 0.651]	0.237 (0.284) [-0.229; 0.704]
	OR	0.674 (0.091)* [0.539; 0.842]	1.362 (0.284) [0.966; 1.918]	1.268 (0.359) [0.795; 2.021]
Reference Group: Profile 3				
Predictor → Profile 1	b	0.180 (0.262) [-0.252; 0.612]	1.509 (0.326)* [0.972; 2.045]	0.926 (0.454)* [0.179; 1.674]
	OR	1.197 (0.314) [0.778; 1.843]	4.520 (1.475)* [2.643; 7.730]	2.525 (1.147) [1.196; 5.331]
Predictor → Profile 2	b	0.395 (0.135)* [0.172; 0.618]	-0.309 (0.208) [-0.651; 0.034]	-0.237 (0.284) [-0.704; 0.229]
	OR	1.484 (0.201)* [1.188; 1.855]	0.734 (0.153) [0.521; 1.035]	0.789 (0.224) [0.495; 1.258]

Note. * $p < .05$.