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RUNNING HEAD: Prejudice-Reduction in Culturally Mixed Classrooms

Prejudice-Reduction in Culturally Mixed Classrooms:

The development and assessment of a theory-driven intervention among majority and minority youth in Finland

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Keywords: extended contact, cross-group friendships, prejudice, behavioural journalism, contact hypothesis, majority groups, minority groups

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Abstract

The aim of this field experiment was to develop and assess an intervention promoting positive intergroup relations in culturally diverse school classes. The intervention was based on extended contact and social learning and utilised behavioural journalism as its method, including narratives written in first-person voice. Intervention effects were assessed on outgroup attitudes, perceived importance of future contact, perceived peer norms and intergroup anxiety among ethnic majority ($N = 583$) and minority ($N = 214$) youth in grades 7-9 in Finnish secondary schools (total $N_{\text{experimental}} = 388$; total $N_{\text{control}} = 409$). Both minority and majority participants perceived both in- and outgroup storytellers to be prototypical of their group. As a result of the intervention, both groups showed a tendency to perceive future intergroup contact as more important than before, and this effect was most notable for younger participants and girls. However, unexpectedly, the intervention also increased experiences of intergroup anxiety among the oldest participants. The results are thoroughly discussed, taking into account also the developmental stage of the youth studied. Besides critically assessing the effectiveness of the present intervention, recommendations for improving theory-driven prejudice-reduction and for the development of future interventions in culturally diverse contexts are given.

Prejudice-Reduction in Culturally Mixed Classrooms:

The development and assessment of a theory-driven prejudice-reduction intervention among majority and minority youth in Finland

Research on intergroup contact promoting good intergroup relations has made notable advances recently (see, e.g., Pettigrew, Tropp, Wagner, & Christ, 2011). Although exceptions exist (e.g., Swart, Hewstone, Christ, & Voci, 2011; Jasinskaja-Lahti, Mähönen, & Liebkind, 2011), most studies have focused on majority group members and contact effects have usually been weaker or lacked among minority members (Binder et al., 2009). However, despite theoretical and methodological advances, the best practical ways to reduce prejudice seem less obvious. Scholars, policy makers and practitioners want not only to understand but also to prevent and remedy the intergroup conflict and discrimination. According to Paluck and Green (2009), the intervention literature does not help much, as most prejudice-reduction interventions have not been evaluated with experimental methods (p. 360). To mention one exception, Al Ramiah and Hewstone (2012) evaluated a nation-building program in Malaysia and found negligible to small changes as an effect of intergroup contact.

Efforts to develop and assess theory-driven prejudice-reduction interventions efficient in culturally diverse contexts are even less common than evaluations of existing interventions to reduce prejudice. Despite prevailing norms supporting integration and multiculturalism in most Western societies, majority and minority members may understand these concepts differently or favour different ideologies, with detrimental consequences for intergroup relations (Bourhis, Moise, Perreault, & Senecal, 1997; Plaut, Garnett, Buffardi, & Sanchez-Burks, 2011). Hence, interventions aimed at supporting both diversity and integration may backlash if majority members feel excluded and interpret them as efforts to emphasize the cultures, contributions, and involvement of minorities only (Plaut et al., 2011).

As youth spend much time at school, this context is crucial for future intergroup relations; it creates opportunities for intergroup friendships as well as for negative experiences such as prejudice, racism, rejection and social exclusion (Spiel & Strohmeier, 2012). Disturbing degrees of re-segregation, i.e., pervasive practices of informal segregation have been found in educational settings (Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008). Thus, despite much hope for the contrary, cultural diversity does not guarantee intergroup friendship; mere opportunities for intergroup contact – even in school classes in which contacts with classmates is almost inevitable – are insufficient to reduce negative outgroup attitudes (e.g., Turner, Voci, & Hewstone, 2007) and can even increase them (Vervoort, Scholte, & Scheepers, 2011). Hence, a deeper understanding of attitude change in culturally diverse intergroup contexts is sorely needed.

The theoretical background of the present intervention was derived from research literature on intergroup contact in general and extended contact in particular (Cameron et al., 2006; Liebkind & McAlister, 1999; Wright, Aron, McLaughlin-Volpe & Ropp, 1997). Research on the latter has shown that extended contact, i.e., knowing an ingroup member having a close relationship with an outgroup member, is sufficient for more positive intergroup attitudes to emerge among minority and majority members alike (e.g., Gómez, Tropp, & Fernández, 2011). However, only a few field experiments have involved children, and only majority children: Extended intergroup contact through story reading improved attitudes toward the disabled among British school children with low opportunity for direct intergroup contact (Cameron & Rutland, 2006) and so did also reading intervention among Finnish school-aged adolescents (Liebkind & McAlister (1999).

We will use this research tradition's concepts although we acknowledge that for many 2nd generation and bicultural youth the dichotomy “ingroup” versus “outgroup” may not be valid. In this intervention vicarious contact experiences, a form of extended contact (Bandura, 1986; Dovidio, Eller, & Hewstone, 2011), were evoked via the method of ‘behavioural journalism’, using real-world stories about how outgroup attitudes of peer ‘role models’ have changed. This

methodology has been utilized in previous extended contact interventions (Liebkind & McAlister, 1999) and in various health promotion programs utilizing Bandura's social-cognitive theory (1986; for a discussion and examples, see Bartholomew, Parcel, Kok, & Gottlieb, 2006). Vicarious experiences and peer modelling is central in Bandura's classic theorisation, and also in recent social psychological research on intergroup relations; perception of positive ingroup norms about contact with outgroup members is crucial for attitude change among youth (De Tezanos-Pinto, Bratt, & Brown, 2010).

According to Mazziotta, Mummendey and Wright (2011, p. 268), vicarious and extended contact share three basic assumptions: the observed interaction must be perceived as positive and successful (accomplishing the goals of the partners), and the in- and outgroup members as good representatives (prototypical) for their respective groups. Hence, this intervention was based on both persuasive vicarious experiences and positive outgroup exemplars, because learning about an outgroup member interested in intergroup contact could provide information about positive attitudes and norms within the outgroup (Mazziotta et al., 2011; Turner, Hewstone, Voci, & Vonofakou, 2008). Focusing on similarities or common identities (e.g., Gaertner et al., 2008; Schmader, Croft, Whitehead, & Stone, 2013) with outgroup members may help to overcome the "contact barrier" of intergroup friendship (Mallett & Wilson, 2010). Thus, more widespread – and less obtrusive – reduction in prejudice can occur from vicarious experiences of friendship, given that the in- and the outgroup members are perceived as prototypical members of their groups.

Regarding outcomes, research has established the psychological mechanisms through which direct and extended contact have positive effects on outgroup attitudes. An important mediator is reduced intergroup anxiety, i.e., feelings of apprehension when envisaging or being in a contact situation with outgroup members (e.g., Turner et al., 2008). It is therefore crucial to influence anticipations and expectations about future intergroup interaction in a positive direction (e.g., Mallett & Wilson, 2010), for example, by enhancing the perceived importance of intergroup

contact (van Dick et al., 2004). People are unlikely to seek contact experiences perceived to be personally unimportant, and it could be assumed that positive experiences of direct or extended contact may not only reduce anxiety but also increase perceived importance of future contact. Van Dick et al. (2004) found that subjectively perceived importance of intergroup contact mediates much of intergroup contact's effect on prejudice. As intergroup attitudes reflect both individual needs and gains or losses experienced by one's ingroup (e.g., Stephan, Renfro, & Davis, 2008), perceived importance of intergroup contact is also related to the anticipated consequences of such contact for the ingroup as a whole (Mähönen, Jasinskaja-Lahti, Liebkind, & Finell, 2011). Consequently, it can be expected that observing ingroup members engaging in rewarding intergroup contact also increase the perceived importance of such contact.

The aim of this study was to develop and assess an intervention promoting positive intergroup relations in culturally diverse school classes in Finland, where only a small proportion of the population is foreign born (4.8 %) (Statistics Finland, 2012). We assess the effects of the intervention on outgroup attitudes, perceived importance of future contact, perceived peer norms and intergroup anxiety.³ Based on previous research we expect the intervention to result in more positive intergroup relations, i.e., increased perceptions of the importance of future intergroup contact, reduced levels of intergroup anxiety, more positive peer norms and more positive outgroup attitudes among both minority and majority youth. Direct contact has been found to have a stronger effect on majority members' attitudes, while the opposite is true for extended contact (e.g., Binder et al., 2009). Intergroup interventions in educational settings have generally shown stronger effects among majority than minority group members (Engberg, 2004, 501), but to our knowledge the effect of extended contact on majority and minority group members has not been previously tested in any intervention study. Considering the high proportion of minority participants with a bicultural background (cf. Methods), we only explore whether the effects of the intervention differ for majority and minority participants.

Methods

Participants

Pupils from grades seven to nine in six upper secondary schools in the capital area of Finland (girls 49.9%; age 13-19 years, $M = 15$ years; 583 Finnish and 214 with an immigrant background) were asked to participate in the study that took place in 2010-2011. Seventy per cent of the parents gave their informed consent. On average 22 % of the pupils had an immigrant background (i.e., at least one parent born abroad). Most minority pupils (65,8 %) had both parents born outside Finland. The foreign born parents represented 52 different countries of origin, but the most common countries were Russia, Estonia and Somalia¹. Twenty-two per cent of the mothers and 11,7 % of the fathers of minority pupils were born in Finland, and 62,7% of these pupils were themselves born in Finland. Classes were randomly chosen within schools and grades into one experimental and one control group. The response rates were 82 % (pre-test) and 78 % (post-test) respectively among those whose parents gave their informed consent. Both pre- and post-test questionnaires were completed by 595 majority and 226 minority pupils. The attrition from pre- to post-test was 17 % and did not differ between majority and minority pupils. Pupils who did not attend all experimental sessions were excluded from the final sample, in which the experimental group included 288 majority and 100 minority pupils and the control group 295 majority and 114 minority pupils.

Procedure

Two weeks before the intervention participants completed an electronic questionnaire in a computer lab. There were two Finnish-language versions of the questionnaire depending on whether none or at least one parent was born outside Finland. The questionnaire given to the minority pupils included some additional questions. The study lasted nine weeks in each school as follows:

Week 1: T₁ Questionnaire

Weeks 2-3: Break

Weeks 4-6: Intervention

Weeks 7-8: Break

Week 9: T₂ Questionnaire

Pupils in the experimental group participated in one carefully structured 45 minute intervention session per week for three consecutive weeks. The control group followed the normal curriculum. In nine out of 83 classes the pre-test was completed one week before or the post-test three weeks after the intervention.

As in previous studies utilizing extended contact among children and youth (Cameron et al., 2006, Liebkind & McAlister, 1999), the intervention method of behavioural journalism was implemented using written narratives. Stories about intergroup friendship are channels for communicating social norms, describing what peers are doing and therefore what the reader or listener should do (Bandura, 1986). They have proved effective in eliciting attitude change (Kaufman & Libby, 2012). Acknowledging the theoretical roots of behavioural journalism (Bandura, 1986) and the recommendations given when implementing it in interventions (Bartholomew et al., 2006, pp. 128-135), we emphasized guided, active learning of the pupils, the prototypicality of the peer models, the persuasiveness of attitude change, and the repeated reinforcement of the intended message, i.e., that attitude change is a normal process (cf. Carr, Dweck, & Pauker, 2012) leading to positive experiences. Hence, the tasks given to the pupils in the intervention classes were chosen to meet their developmental stage and keep up their motivation through group discussions.

Each session was led by one male and one female social psychology student who had been trained to lead intervention sessions according to a structured plan. They practiced the sessions beforehand. Teachers were asked to stay in the classroom but not to intervene in the sessions.

Description of the intervention:

1. Each session started with a 5 minutes presentation to familiarise the participants with key concepts (e.g., immigrant, culture, attitude, prejudice).
2. Four different first-person stories (by a Finnish boy, a Finnish girl, an immigrant boy and an immigrant girl, altogether 12 stories, cf. Appendix) of intergroup friendships, written by the researchers, were presented in each session: prototypical peer models communicated their change stories, emphasising the social support they had received. In line with social-cognitive theory also vicarious incentives (positive consequences) were made salient (Bandura, 1986). Stories were based on pilot interviews with Finnish and immigrant youth on intergroup friendship, and each story was streamlined to include key components of extended contact and social learning; after telling about her/his initial prejudice or apprehension towards outgroup members the storyteller described how these changed as a result of fruitful friendship with an outgroup member who was similar to the storyteller. The narratives in each session approached intergroup friendships from a different perspective; session 1 emphasized individual one-to-one relationships, session 2 the effect of normative contexts (e.g. peer group) on attitudes towards intergroup relationships, and session 3 wider societal contexts (e.g., future work life).
3. Different pedagogical methods to evoke active learning were used (e.g., mind-maps, small group discussions, writing their own stories, drawing cartoons) to keep the pupils interested, and participants were encouraged to share stories of their own during the sessions. The intervention assistants further reinforced the key message of the stories by sharing their experiences of attitude change after intergroup contact and guiding the discussion in positive directions. While not denying the challenges of intercultural encounters, the focus on positive intergroup relationships was motivated with reference to the strong emphasis on negative intergroup relations in public discourse. If negative

experiences (e.g., discrimination) came up they were acknowledged but not discussed.

Racist or ethnically degrading comments were not allowed.

Measures

The following background variables were measured at T₁: age, gender (girls = 0, boys = 1,) and group status (majority = 0, minority = 1,), as well as grade (7-9) and school, which were re-coded as dummies with grade seven and the school with most participants as reference categories.

Direct intergroup contact was measured by asking "How many of your friends have an immigrant background²/are Finnish?" (Pettigrew, 1997). Responses were coded into 0, 1-5, or > 5. Of the total sample, 18.8 % had no outgroup friends, 52.3 % had 1-5 and 28.9 % had > 5 outgroup friends. The variable was then re-coded as a dummy variable with the category no friends as a reference category.

Outgroup attitudes were assessed by asking the respondents to indicate their overall feeling towards the target outgroup (people with immigrant background/Finns) along a feeling thermometer (0 = extremely unfavorable, 100 = extremely favorable; Haddock, Zanna & Esses, 1993).

Perceived importance of future contact was assessed by two questions regarding the personal importance and value of intergroup contact (adapted from van Dick et al., 2004); "Contact with people with an immigrant background/Finns means a lot to me" and "It is not important for me to have contact with people with an immigrant background/Finns.", reversed item), and by a third question on the value of such contact for the ingroup (Mähönen et al., 2011). Response options ranged from 1 = totally disagree to 6 = fully agree ($\alpha_{t_1} = .70, t_2 = .69$).

Intergroup anxiety was measured on a six-item scale adapted from Stephan and Stephan (1985). The respondents were asked: "If you were the only Finnish person/person with an immigrant background interacting (for example, talking or doing school work) with people having

an immigrant background/Finnish people, how would you feel?”. The items were taken from Tausch, Hewstone, Kenworthy, Cairns and Christ (2007): nervous, anxious, comfortable, awkward, safe, and at ease, but response options were recoded to a 6-point scale to fit it with the other scales used (1 = not at all to 6 = extremely; α t_1 and $t_2 = .90$).

Perceived ingroup peer norms were assessed with the adapted measure of perceived parental approval for intergroup contact previously used by Ata, Bastian and Lusher (2009) to normative influence from peers in a 4-item scale asking: ”How would your peers from your own cultural group react if...1) you would spend your leisure-time outside school, 2) you would have as a close friend, 3) you would date, 4) you would in the future marry someone with an immigrant background/a Finnish person?”. Response options ranged from 1 = very negatively to 6 = very positively (those who answered at least three items were included in the analysis, α $t_1 = .93$, $t_2 = .95$).

Main statistical analysis

The participants were nested within 83 classes and the intervention was introduced at the class level. In order to control for classroom-related variability (Vervoort, et al. 2011) we tested the intervention effect with a two-level random intercept multilevel design. Pre-test scores of each outcome variable are included as a fixed effect in each respective multilevel model. Grade and schools are level II variables, while gender, age, group status and direct contact represent individual level I variables. Two multilevel models are estimated for each outcome variable. The first model included only the pre-test score as a baseline control variable, as an empty model presenting the variance across observations before other variables were added. Model two includes all independent variables. We used STATA 11.2 for the multilevel analyses.

Results

Table 1 shows the means of each outcome variable at the two time points, followed by paired samples *t*-tests. Initially lending partial support for our hypothesis, a small pre/post-test change in the right direction was observed for the experimental group in two of the outcomes (outgroup attitudes and perceived importance of future contact). In addition, there was a small positive change in peer norms but within the control group only.

[Table 1 here]

Table 2 presents the results of the multilevel analysis. When all individual (gender and age) and context (grade and school) level variables were controlled for (Model 2), there was only a trend towards a significant intervention effect ($p = .074$) on only one outcome; perceived importance of contact.

[Table 2 here]

To see if the results differed between majority and minority youth, an interaction between group status (majority/minority) and intervention was tested in a model including all other independent variables. Group status had no significant impact on the effectiveness of the intervention for any outcome variable.

Post hoc analyses

Given the unexpectedly weak results, we first conducted the same multilevel analyses separately for each of the demographic subgroups (grade, gender and gender x status). For the feeling thermometer we observed a trend towards an intervention effect in grade seven ($\beta = -4.66$, $p = .054$). For perceived importance of contact we found a significant effect of the intervention in grade eight ($\beta = -.28$, $p = .010$), and a tendency towards statistical significance in grade seven ($\beta = -.18$, $p = .075$) and majority girls ($\beta = -.16$, $p = .081$). An effect on intergroup anxiety in grade nine was found in the unexpected direction, i.e., the anxiety was higher in the experimental group than the control group after the intervention ($\beta = -.23$, $p = .023$). Thus, the main effect of intervention on

perceived importance reported above was especially salient among younger participants and majority girls.

For extended contact to work respondents need to perceive both ingroup and outgroup exemplars as prototypical group members (Wright et al., 1997). As individual differences are possible in the way the intervention materials were perceived, we tested whether more substantial changes in the outcomes studied were achieved among those participants in the experimental group who saw the storytellers as more prototypical of their membership group. Perceived prototypicality of storytellers was assessed after the last intervention session, with response options ranging from ‘0 = not at all typical’ to ‘100 = very typical (of the storyteller’s group)’. Majority respondents perceived both Finnish and immigrant storytellers as fairly prototypical (Finnish storytellers $M = 61.45$, $SD = 21.09$, immigrant storytellers $M = 59.31$, $SD = 20.43$), and so did the minority respondents (Finnish storytellers $M = 61.35$, $SD = 21.13$, immigrant storytellers $M = 61.86$, $SD = 21.70$). There was no difference between minority and majority respondents regarding perceived prototypicality of Finnish ($F(1) = .001$, $p = .969$, $\eta^2 < .001$) or immigrant ($F(1) = .893$, $p = .345$, $\eta^2 = .003$) storytellers.

We next ran multilevel analyses among participants of the experimental group only including all the variables in our original multilevel model (see Table 2; except for condition (experimental/control) and prototypicality. The effect of the prototypicality of the Finnish storyteller was statistically significant in models predicting three of the four outcomes: outgroup attitudes ($\beta = .113$, $p = .011$), perceived importance ($\beta = .005$, $p = .010$) and peer norms ($\beta = .006$, $p = .004$). Thus, intervention effects seemed stronger among those pupils who perceived the Finnish storytellers as prototypical. Finally, the analysis was replicated for majority and minority pupils separately. Among majority pupils, the effect of prototypicality was significant for peer norms only ($\beta = .007$, $p = .010$), whereas among minority pupils, significant results were found for outgroup attitudes ($\beta = .22$, $p = .008$) and perceived importance of contact ($\beta = .013$, $p = .004$). In contrast,

the degree to which the immigrant storytellers were perceived as typical group members had no effect on changes in the outcome variables among majority or minority participants.

These post hoc analyses complement our main results and findings related to subgroups by showing that within the experimental group, more positive changes in outgroup attitudes, ingroup norms and perceived importance of contact occurred when the Finnish storytellers were perceived as more typical, i.e., when the theoretical conditions of the intervention were optimally met. Importantly, it was only the perceived prototypicality of majority exemplars which evoked changes in outcome variables among both majority and minority participants, indicating the importance of both ingroup role models (for majority youth) and outgroup exemplars (for minority youth).

Discussion

To sum up the results of this intervention study aiming at influencing the attitudes of both majority and minority pupils simultaneously, only some of the expected effects were achieved. Majority and minority youth alike showed at least a tendency to perceive future intergroup contact as more important than before, and at best, this could lower the threshold for future intergroup contact (Mallett & Wilson, 2010; Van Dick et al., 2004). This effect was, however, most notable for younger participants and girls, in line with previous research indicating more change in a positive direction among girls and younger children (Liebkind & McAlister, 1999). Also the unexpected and unintended significant increase in intergroup anxiety among the oldest (grade nine) participants in this study could have developmental reasons; increased cognitive skills with concomitant increased awareness of group norms (Abrams, Rutland, Cameron, & Marques, 2003) could have prompted a deeper cognitive processing of outgroup storytellers and thus fostered more extreme reactions to

them (cf., Vorauer & Sasaki, 2011). However, our results may reflect also different educational and social contexts in grades 7-9.

To the extent that intended intervention effects were at least partly obtained and our hypothesis thus partly confirmed, it is likely to be due to the perceived prototypicality of in- and outgroup storytellers among both minority and majority participants. Post hoc-tests showed that the extent to which Finnish storytellers were perceived to be prototypical was related to changes in outcome variables among both majority and minority group participants. However, the reality of present-day culturally mixed classrooms where many pupils have bicultural backgrounds contradicts the tradition of social psychological theory to assume dichotomous in- and outgroup membership. Hence, we cannot know to what extent the Finnish storytellers represented in- or outgroup members for the minority pupils. Nevertheless, what we can say is that typical majority exemplars seem to influence the intergroup attitudes and behavior of minority members to a higher extent than vice versa. The dichotomous categorization of the pupils into majority and minority members could thus be one reason why some but not all of the results of our intervention were promising.

Yet this study made use of substantial theoretical and methodological advances in social psychological research on processes involved in narrative persuasion and extended contact. It is therefore of utmost importance to increase our knowledge not only on “what works” (Paluck & Green, 2009) but also to specify for whom and what does not work, as only such specifications can help us to develop better interventions. First, in order to disentangle the effects of majority and minority exemplars we would have needed three conditions instead of two. The obstacle to this was the relatively culturally homogeneous Finnish schools. Second, our two-wave design was not suitable for testing mediation effects (cf. e.g., Swart et al., 2011), which prompted an analysis of direct effects only. Future interventions should include two post-tests. Third, although this intervention was by no means one of the shortest (56 % of the field experiments reviewed by Paluck

& Green, 2009, lasted one day or less), it may nevertheless have been too short. Fourth, in our study, the time period between the intervention and the post-test might have been too long. In a rare previous study assessing the effect of a prejudice-reducing program on children's outgroup attitudes (Turner & Brown, 2008) positive effects were obtained in the short-term (one week after the intervention), but not in the long-term (seven weeks after the intervention) condition. In our study, post-tests were conducted two weeks (in nine classes even three weeks) after the intervention. It is therefore possible that both the short intervention and the late post-test are partly responsible for the lack of effects. However, some intervention effects may appear only after a longer period of time. In a smoking prevention intervention by Vartiainen and colleagues (2007), no effects were found among six-graders and boys immediately after the intervention but six months later. The researchers explained this delay with the older adolescents' resistance in an attempt to influence their attitudes.

Fifth, there may have been a possible confound between experimental and control groups: although school classes within each grade were within each school randomly assigned into experimental and control conditions, the pupils in these two conditions were in contact with each other as class compositions changed according to subjects taught. Also friendship networks crossed class boundaries which may have caused the effect of the intervention to "spill over" to participants in the control group, creating a rare "extended extended contact effect" visible in the small positive change in peer norms within the control group (cf. Table 1). However, the classes-within-schools design avoided the great difficulty to find sufficiently comparable experimental and control schools.

Sixth, to our knowledge, this is the first time that the pupils studied learned about both ingroup and outgroup members' experiences of positive intergroup contact. To the extent that the initial negative attitudes of the latter – which turned positive as a result of their positive experience – have been threatening to the respondents, this may partly explain the small effects obtained.

Finally, one of the reasons for the weak effects obtained may be a dramatic decrease in the social and institutional support for intergroup contact (Allport, 1954): Political campaigns for

the parliamentary election peaked at the time of this intervention, with the xenophobic sentiments of a right-wing populist party dominating public discourse (Maasilta, 2012). Children and adolescents are not immune to the attitudinal climate of their environment (Mole, 2007; Turner & Brown, 2008).

It can be concluded that the results obtained in this study were in the right direction, and if further developed, this intervention should be tested in intergroup contexts varying in cultural diversity. Only a continuous interplay between theory and practice can ensure better interventions in school contexts.

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Footnotes

¹Of all foreign born in Finland, by far the largest group was born in Russia/former SU (N = 67 127, i.e., 26 %), followed by Estonia (N = 30 250) and Somalia (N = 13 930) (Statistics Finland, 2012).

²The general term “immigrant background” was used throughout the questionnaire after having first explained the meaning of the term to the respondents: “*Some of the questions in this questionnaire refer to ‘people with an immigrant background’. This refers to persons whose one or both parents have been born in another country than Finland*” This concept was chosen for several reasons: the childhood of 2nd generation immigrants and adolescents from bicultural families may encompass also other than Finnish cultural influences, they may be considered “not quite Finnish” by others, even against their own self-definitions, and the same term has been used before in research on youth in Finland (Strohmeier, Kärnä & Salmivalli 2011).

³ We acknowledge that some of our outcome variables have been used as mediators (i.e., importance of contact, e.g., Van Dick et al., 2004) or moderators (i.e., peer norms, e.g., Mähönen, Jasinskaja-Lahti & Liebkind, 2011) when studying the effects of direct contact, but in our pre-post design we approached these variables as proxies of intergroup relations and examined the direct effects of extended contact on them.

APPENDIX 1¹*Faisal (IMMIGRANT BACKGROUND)*

Faisal is born in Finland, but his parents are from Iraq. He is in the 7th grade. He has a lot of friends with whom he often plays on the internet.

I had to change schools when I went to secondary school. At first it found it hard to find new Finnish friends there. In secondary school everyone started talking about drinking and smoking but I had nothing to say and I wasn't even interested in talking about that kind of things. Suddenly I felt that I was really different, and I didn't even want to be like them. So didn't even really try to get to know anyone, but thought that all Finnish people are like that - especially when my Iraqi friends told me similar stories about them. However, at home my dad always talked about one of his Finnish work mates. He said that he's a really good and respectable man and not all Finnish people are the way I thought they were.

A couple of months ago I was playing on the internet. I started talking to this Finnish guy who also plays a lot. We started chatting about other things as well, like school and stuff. I found out that he doesn't want to drink and smoke either, even though he's in the 8th grade. Sami doesn't live that far from me and we've met a couple of times, although most of the time we play on the internet. It's a really good thing that we became friends: now I don't think that all Finnish people are the way I thought they were. It pays to have the courage to get to know other people and to give another person a chance.

¹ There were altogether 12 stories; 3 stories told by Finnish girls, 3 stories told by Finnish boys, 3 stories told by boys with an immigrant background in Iraq, Russia or Somalia and 3 stories told by girls with an immigrant background in Estonia, Turkey or Vietnam. Stories included a picture of the storyteller. The pictures were purchased from an international image bank. The participants did not ask about the origin of the stories and intervention assistants did not bring it up during the sessions.

Table 1.

Intervention effects on feeling thermometer, perceived importance of future contact, perceived peer norms and intergroup anxiety within groups (Experimental $n = 373$ – 383 , Control $n = 397$ – 401)

Variable	T1	T2	Change within a group ¹	
	<i>M (SD)</i>	<i>M (SD)</i>	<i>t (df)</i>	<i>p</i>
<i>Feeling thermometer</i>				
Experimental	55.85 (28.62)	57.88 (28.04)	-2.23 (377)	.027*
Control	57.01 (29.29)	57.61 (28.83)	-.61 (400)	.542
<i>Perceived importance of contact</i>				
Experimental	3.42 (1.20)	3.56 (1.24)	-3.10 (378)	.002**
Control	3.55 (1.22)	3.56 (1.21)	-.24 (400)	.811
<i>Perceived peer norms</i>				
Experimental	4.15 (1.37)	4.18 (1.34)	-.63 (375)	.527
Control	4.16 (1.37)	4.28 (1.29)	-2.54 (387)	.012*
<i>Intergroup anxiety</i>				
Experimental	3.05 (1.16)	3.08 (1.14)	-.58 (372)	.560
Control	3.09 (1.23)	3.11 (1.25)	-.52 (396)	.604

Notes: ¹Pairwise t-tests, exploring change T1-T2 within experimental and control groups. * $p < .05$; ** $p < .001$.

Table 2.
Multilevel random intercept models testing the intervention effect on four outcomes in 83 school classes

Parameters	Feeling thermometer		Intergroup anxiety		Peer norms		Perceived importance	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Fixed effects								
Class-level								
Intervention (control=1)	-.96	-1.36	-.00	-.00	.09	.10	-.09	-.10 [†]
Grade								
Seventh grade (reference)		-		-		-		-
Eight grade		4.26		-.07		.00		-.01
Ninth grade		5.26		-.00		.29		.16
Schools								
School A (reference)		-		-		-		-
School B		-3.27		.13		-.00		.01
School C		8.61**		-.25 [†]		.36**		.29*
School D		2.91		-.15		.27*		-.01
School E		3.11		-.25		.17		-.13
School F		.43		-.09		.08		-.04
Individual-level								
Intercept	17.99***	58.14*	.96***	.86	1.24***	3.68	.97***	2.39*
Baseline score	.71***	.62***	.69***	.63***	.70	.63***	.75***	.67***
Age		-3.04		.03		-.15 [†]		-.08
Gender (boys=1)		-2.91*		.15*		-.25***		-.14*
Group status (minority=1)		6.81***		-.20*		.38***		.05
Quantity of friends								
No friends (reference)		-		-		-		-
One to five friends		6.98***		-.09		.12		.17*
Six or more friends		9.57***		-.21*		.13		.40***
Random parameters								
Between classes variance	12.12	9.27	.05	.04	.02	.88•10 ⁻²	5.88•10 ⁻³	9.83•10 ⁻¹⁸
Between individuals variance	359.14	321.85	.67	.63	.74	.69	.65	.62
N (pupils)	(779)	(770)	(770)	(761)	(764)	(755)	(780)	(771)

Notes: Unstandardized coefficients. [†] $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$.