

Extended contact through peer modelling to promote tolerance in Finland

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Abstract

A field experiment studied the effect of extended contact through peer modelling for tolerance promotion among 1480 Finnish students (ages 13–15) in three pairs of middle schools that were matched on the proportion of foreign students (ranging from 3 per cent to 19 per cent) and randomised to control or experimental condition. In the experimental schools, printed stories of ingroup members engaged in close friendship with members of outgroups were presented in two sessions as examples of successful intergroup contact. In order to avoid subtyping, i.e. to ensure both inclusion of the ingroup member in the self and generalisation from the outgroup friend to the whole outgroup, the typicality of both the ingroup exemplar and the outgroup friend was enhanced. Intergroup attitudes were measured before and after the experimental intervention. A scale score measuring intergroup tolerance showed stability or favourable changes in experimental schools, while attitudes worsened or stayed the same in the control schools. The experimental effect was significant in four statistical tests ($p < 0.001$ to $p < 0.05$). The results show that tolerance can be improved or maintained by extended contact, i.e. peer modelling of positive intergroup contacts. Copyright © 1999 John Wiley & Sons, Ltd.

The central premise of the so-called *intergroup contact hypothesis* (Allport, 1954) is that the best way to reduce existing negative intergroup attitudes between members of different groups is to bring them into contact with each other (Brown, 1995). However, even in the early statements of the contact hypothesis it was realised that contact in and of itself was not enough. Allport (1954) identified a number of conditions which he believed needed to be satisfied before we could expect contact to have

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its desired effects. These have been added to and refined by subsequent commentators (Amir, 1969, 1976; Cook, 1978; Pettigrew, 1971), sometimes making the hypothesis appear more like a 'grocery list' of necessary conditions than a coherent model of attitude or behavioural change (Wright, Aron, McLaughlin-Volpe & Ropp, 1997). Among the more important conditions listed are social and institutional support and high acquaintance potential of the contact and equal status of the participants.

The most important reason for the condition of social and institutional support is that it helps to create a new social climate in which more tolerant norms can emerge. There is not much research evidence of this, mainly due to insurmountable methodological obstacles (Brown, 1995). Only in artificial experimental groups have group norms against discrimination been shown to dramatically reduce the general tendency towards ingroup bias (Jetten, Spears & Manstead, 1996). However, a number of studies have reported significant correlations between adolescents' racial attitudes and the attitudes of their peers. Conformity to ingroup norms regarding intergroup attitudes may be particularly important during adolescence (Duckitt, 1992).

The reason for the condition of high acquaintance potential is that fairly close interpersonal relationships are thought to be rewarding. Thus, the argument runs, the positive affect generated by these relationships will 'spill over' to encompass the outgroup as a whole. Several recent theoretical discussions of contact effects have focused on the role of interpersonal intimacy (Cook, 1984; Herek & Capitanio, 1996; Pettigrew, 1997). For example, Pettigrew (1997) demonstrated that having an outgroup friend predicts lower levels of both subtle and blatant prejudice. All efforts to reduce racist attitudes must acknowledge that 'defeated intellectually, prejudice lingers emotionally' (Allport, 1954, p. 328). Thus, affective reactions to intergroup contact situations are crucial, and information about such contacts must be processed in a way which maintains positive mood or changes a negative mood to a positive one (Hogg & Abrams, 1988; Johnston & Hewstone, 1990). Ponteretto and Pedersen (1993) have shown that purely cognitive information may be able to correct false beliefs about outgroups, but that new false beliefs will easily replace the old ones if interventions lack affective components. Finally, there is a wealth of evidence showing the advantage of equal-status contact for reducing prejudice (Brown, 1995). It is clear that contact ideally should take place between equal-status participants, e.g. as between peers in the classroom.

THEORETICAL DEVELOPMENTS BEYOND THE CONTACT HYPOTHESIS

However, the issue of generalisation is absolutely central to any discussion of the effects of intergroup contact. How do the positive effects of contact with an individual outgroup member generalise to attitudes about the outgroup as a whole? Lately, three new developments of the Contact Hypothesis have emerged, all of which address more or less explicitly the issue of generalisation (Brewer & Miller, 1984; Gaertner, Dovidio, Anastasio, Bachevan & Rust, 1993; Hewstone & Brown, 1986). Although all three have their origins in Social Identity Theory (all recognise that group memberships get incorporated into people's self-concepts and that these social identifications have important consequences for behaviour), they make different and occasionally conflicting predictions concerning the optimal conditions for facilitating the generalisation of the positive effects of contact beyond the contact setting itself (Brown, 1995).

Two of these models (Brewer & Miller, 1984 and Gaertner *et al.*, 1993) propose dissolution, in one way or another, of existing group boundaries. In contrast, Hewstone and Brown (1986) suggest that rather than attempting to eliminate the existing ingroup–outgroup division there may be some virtue in keeping it at least minimally salient while simultaneously optimising the various conditions for successful contact proposed by Allport (1954). In this way the contact will take place at an intergroup rather than an interpersonal level, between people acting as group representatives rather than unaffiliated individuals (Brown, 1995). There is a growing consensus (Wright *et al.*, 1997; Batson, Polycarpou, Harmon-Jones, Imhoff, Mitchener, Bednar, Klein & Highberger, 1997; Brown, 1995; Pettigrew, 1986, 1997) that, at some point, group memberships must become salient for interpersonal interactions to affect intergroup attitudes and behaviour.

However, this approach is also fraught with difficulties. If intergroup (as opposed to interpersonal) contact permits greater generalisation of the attitudes promoted by the encounter then, in principle, both positive *and* negative attitudes can be generalised. If the interaction goes wrong, structuring the interaction at the intergroup level could well make matters worse (Brown, 1995, p. 265). In addition, if group memberships are highly salient, interactions with outgroup members can be fraught with anxiety, discomfort or other negative emotions (Islam & Hewstone, 1993; Brown, 1995; Greenland & Brown, 1996). These emotions are usually not conducive to harmonious social relations (Wright *et al.*, 1997; Brown, *in press*; Stephan & Stephan, 1985; Wilder, 1993).

In a recent paper by Wright *et al.* (1997), the so-called *extended contact hypothesis* receives considerable support. Wright *et al.* (1997) conclude from their four studies that knowledge that an ingroup member has a close relationship with an outgroup member leads to more positive intergroup attitudes. The ingroup friendship partner provides a positive model for more tolerant norms for interaction with the outgroup and the outgroup member provides a positive exemplar that disconfirms negative expectations and beliefs about the outgroup. This so-called extended contact effect provides a solution to the conundrum described above. In an intergroup friendship, group membership is more likely to be salient to an observer (who is less acquainted with the individuating features of the persons) than to the participants themselves. Further, observing an intergroup friendship does not evoke the interaction anxiety and other negative emotions for the observer that might be evoked by actual participation in intergroup contact. In addition, Wright *et al.* (1997) emphasise that, through extended contact, widespread reductions in prejudice is possible without everyone needing to have outgroup friendships themselves.

PREVAILING ATTITUDE CLIMATE IN THE INTERGROUP CONTEXT STUDIED

Finland is just beginning to cope with the increasing ethnic diversification of European culture. Although the population has for long been used to two national languages (Finnish and Swedish) and two state churches (the Lutheran and the Greek orthodox ones), until recently the only ethnic minorities have been the Rom or Gypsies (approximately 0.1 per cent of the population), known as ‘mustalainen’ or ‘black folks’

in Finnish, and the even smaller groups of Sami (Lapps), Tatars and Jews. The opening of Eastern borders and the growing influx of refugees has led to increasing settlement of Russians, Africans and other groups. Altogether groups with a foreign background now form approximately 1.6 per cent of the Finnish population.

These groups have not always been easily accepted in Finnish communities (Liebkind, 1994, 1996). In spring 1997, 20 per cent of 506 15–16-year-old pupils from five different urban and rural areas in Finland placed the acceptance of racism and xenophobia at points 0–4 on a 10-point scale ranging from ‘very patriotic’ (0) to ‘not at all patriotic’ (10) (Virrankoski, 1997). Other recent surveys of the Finnish population reveal resistance to integration of ‘foreigners’. The proportion of the population having very negative attitudes towards foreigners increased from 10 per cent in 1987 to 20 per cent in 1993 (Jaakkola, 1994), and in 1996 (Helakorpi, Uutela, Prättälä & Puska, 1996), 26 per cent of the adults report that they would be bothered or disturbed by the prospect of ‘Black’ neighbours from Africa. Considering possible new neighbours from Russia, 37 per cent expressed similar intolerance. These sentiments contrast sharply to those in more ethnically diverse cultures. For example, in Houston, Texas, only 3–7 per cent of other population groups report equivalent opposition to neighbours of African or Mexican origin (McAlister & Orpinas, 1998).

One prominent feature of the attitude climate in Finland is the relative lack of visible social and institutional support for tolerant attitudes. According to Brown (1995), those in authority, i.e. the school headmasters and their staff, the politicians implementing new legislation, and the judges monitoring its administration, should all be unambiguous in their endorsement of the goals of the integration policies. The European Commission against Racism and Intolerance (ECRI) notes the following: ‘Bearing in mind that several racist incidents have recently been reported in Helsinki and elsewhere in Finland, a more overt commitment at a political level would provide a framework for debate on such issues ...’ (ECRI, 1997, p. 29). In its report on Finland ECRI also states that ‘the importance of mass media in informing the public cannot be stressed too highly’ (p. 28) and encourages the Finnish media to ‘more balanced’ reporting (p. 28). Unfortunately, popular media in Finland has sometimes added to the climate of xenophobia by sensational coverage of crimes and HIV infections attributed to foreigners. While governmental policies may influence the rate of cultural diversification, immigration and increasing minority population are inevitable and Finnish society will be well served by active efforts to increase tolerance for minority groups.

MECHANISMS OF ATTITUDE CHANGE

Finnish culture has been shown to be amenable to change in studies of the prevention of cardiovascular disease (Puska, Tuomilehto, Nissinen & Vartiainen, 1995). Reductions in disease rates have been partly accomplished through communication campaigns designed to influence attitudes and behaviour with respect to health-related behaviours (Puska, McAlister, Niemensivu, Piha, Wiio & Koskela, 1987). A central feature of these campaigns has been the presentation of peer ‘role models’ in news and documentary formats. Used in the USA to promote diverse public health

behaviour change, this technique has been termed *behavioural journalism* because it focuses on real stories about how people change (McAlister, 1995). Applied to a school setting, the learning process in this type of communication is based on modelling by peers, as demonstrated by Davies and Hufton (1994). Behavioural journalism has been used to reduce intergroup prejudice and intolerance among high school students in Texas (McAlister, Ama, Barrosom, Peters & Kelders, 1997). It is reasonable to assume that, in an intergroup context, the effect obtained with the behavioural journalism technique is based on extended contact.

According to Wright and his colleagues (Wright *et al.*, 1997), one of the mechanisms underlying and promoting extended contact effects arises out of the powerful influence of new group norms, expressed by the positive ingroup model, on intergroup attitudes. Setting new and positive intergroup norms is especially important in an attitudinal climate lacking visible support for tolerant intergroup attitudes. An ingroup member engaged in a close friendship with a member of the outgroup, thus demonstrating positive intergroup attitudes and tolerant ingroup norms, induces others to follow the same norm (Wright *et al.*, 1997). The use of peer communication makes it possible to engage also affective processes that influence intolerance. Comfortable interaction with an outgroup member demonstrated by ingroup peers may serve to reduce fears and negative expectations in the observer, leading to a more positive impression of the outgroup and even to actual positive intergroup interactions. More importantly, however, the model may also reduce fears of sanctions for violating intolerant group norms if the observed cross-group friendship goes unsanctioned or even results in positive outcomes for the ingroup partner. Such fears of sanctions play a key role in the maintenance of group norms (Cialdini, Kallgren & Reno, 1991).

Another mechanism assumed by Wright *et al.* (1997) to promote extended contact effects is called 'including other in the self' and refers to the tendency of individuals to spontaneously include ingroup members (but not outgroup members) in the self. However, this mechanism is dependant on the extent to which the particular ingroup model is defined as a typical exemplar of the ingroup. Just as positive intergroup contact may fail if people do not generalise from the positive outgroup members whom they have encountered to the outgroup as a whole (Kunda & Oleson, 1995), positive extended contact may fail if the ingroup exemplar is subtyped as 'not really one of us' and hence not included in the self. An ingroup member's status as part of the group can be dismissed as an exception to the rule if he or she violates expectations (Marques, Yzerbyt & Leyens, 1988; Wright *et al.*, 1997).

Consequently, for the extended contact effect to occur, it is important to ensure the typicality of both in- and outgroup members. In the study reported here, we used the technique of behavioural journalism to enhance the typicality of both the ingroup exemplar and the outgroup friend. We also made sure that the ingroup peer model not only demonstrated intimate friendship with a typical outgroup member, but also visibly admitted having had more negative intergroup attitudes before and having changed these attitudes as a consequence of the friendship. This crucial feature of the stories presented to the observers has two goals:

- (1) It aims at reducing the belief distance between the exemplar and the observers and thus to increase the possibility that the exemplar is perceived to be similar enough to be included in the self, and

- (2) It provides new norms, not only for more tolerant intergroup attitudes, but specifically for actual attitude change, making change look both desirable and feasible.

The main aim of this field experiment was to influence intergroup attitudes of the students in a more positive direction or to prevent them from deteriorating further. The method used is thought to be most effective for those students who still have no strong negative emotions towards outgroups. The technique of behavioural journalism was applied to test if tolerance in a school setting could be promoted through news stories about how peers successfully cope with diversity and change their attitudes in close relationships with outgroup members. To study this possibility, we organised a field experiment in six schools in and near Helsinki.

METHOD

Sample

Due to official bilingualism, some 6 per cent of all pupils attending comprehensive school study at Swedish-language schools. Only Finnish-language schools were included in this study. The research design involved three pairs of upper-stage comprehensive schools mostly serving students 13–15 years of age. No specific information on social background is available on the students in these schools, but in accordance with the low degree of social stratification in Finland, differences should not be substantial. Nevertheless, there may have been some differences related to the ethnic density of the schools. As foreigners, due to economic circumstances, tend to take residence where costs are low, the social status in each school's neighbourhood could be inversely related to the number of foreigners in the school. Each pair of schools was matched according to ethnic density, i.e. the degree of diversity in the student population as measured by the percentage that are foreigners. In the highest density school pair, 16–19 per cent of the pupils were immigrants. The equivalent percentage was 11–14 for the medium-density and 3–4 per cent for the low-density schools. The assignment of schools to experimental or control conditions was random. A total of 1480 (746 male, 734 female) students, all of them ethnic Finns, participated in both baseline and follow-up survey in all six schools. The mean age of the students was 14.1 years.

Procedure

The experiments with each matched school pair were carried out in sequence, beginning with the pair with the highest density of immigrant pupils during the spring semester (5 months) of 1996. The medium-density school pair was studied during autumn 1996 and the pair with the lowest density was studied during spring 1997. The process included baseline surveys, communication sessions in the experimental schools and follow-up surveys. At both surveys the questionnaires were distributed and administered by teachers in class and introduced without any explanation or

reference to Helsinki University. Only the headmaster and the responsible teacher knew the background of the survey.

The intervention in the experimental schools included two types of modelling agents: (1) Same-age peers who shared (through printed material) their own stories of attitude change and (2) older models (university students) who expressed support for increasing tolerance of foreigners. In addition, the intervention included brief group discussions designed to influence group norms and perceptions of the social desirability of tolerance. The peer modelling was designed to change attitudes by portraying stories of attitude change. The intervention consisted of two communication sessions in classes of approximately 30 students, in which seven printed stories with a picture and first-person narrative described how peers had changed their attitudes toward foreigners through forming personal friendships with outgroup members. For example, one story told about a girl who was prejudiced against Iranians but changed her attitudes after getting to know one Iranian, and another told about a boy who formerly avoided Somalis but then formed friendships through sports which changed his attitudes. The typicality of both the ingroup exemplar and the outgroup friend was enhanced by adding to the photograph of the ingroup member a short introduction and by including in the printed stories the ingroup member's own generalisation from the outgroup member to the outgroup as a whole.

The stories were collected from students at the first experimental school and written by student research assistants at Helsinki University, who then presented them in classes with students at the experimental schools. Teachers were not asked to participate and were not present in the communication sessions. In the first experimental school, the university student research assistants entered classrooms and introduced themselves in the following way: 'We are interested in people's experiences with foreigners and especially with positive experiences that you might be willing to share'. Students who volunteered to provide a story were interviewed privately and seven stories were selected as role models for the printed material. Permission was obtained to photograph these students and present their story in written form to other pupils, both in their own school and in other schools. In accordance with theory, the criteria for choosing the role models was that they had spontaneously referred to a change in a positive direction of their intergroup attitudes, as a result of the positive intergroup contact.

After the stories had been printed, there were two sessions in each class of the first experimental school in which the stories were presented as good examples of positive intergroup contact. The university student research assistants introduced the sessions by saying 'We have gathered experiences that students have had with foreigners and we would like to share them with you in these printed stories'. In the first experimental school, the students who provided the stories were present in the classroom, but they were not asked to read or comment on their own stories. In the other two experimental schools, both experimental sessions included the distribution, reading and discussion of the printed stories which had been gathered from students in the first experimental school. In the classroom sessions students were randomly asked to read the stories aloud and comment upon them. Positive comments were praised and additional 'testimony' of similar experiences encouraged, while negative comments were politely ignored. Disagreement or debate was not encouraged. During the discussions, the university students explicitly stated their own support for attitudes expressed by the students in the stories. Two sessions of approximately 50 minutes'

duration, with three or four stories in each, were given at each experimental school. While the university student research assistants often encountered shyness or inattention, sessions were carried out without any problems or seriously negative interactions. The first session in the experimental schools took place no less than two and no more than three weeks after the baseline survey. The same time interval was adopted between the two experimental sessions and between the last session and the follow-up survey.

Measures

The surveys were pencil-and-paper self-report forms in which students provided demographic information (age, gender) and answered questions in standard format by indicating extent of agreement with attitude statements on a five-point scale. The response options ranged from 1 (strongly agree) to 5 (strongly disagree). Classroom identity was not recorded. To measure tolerance toward foreigners as a group (generalised attitudes), we selected a group of 17 items from various sources (Schuhman, Steeh & Bobo, 1985; Pettigrew & Meertens, 1995; Jackson, 1995; Kleinpenning & Hagendoorn, 1993; Jaakkola, 1989; McAlister *et al.*, 1997). These questions were designed to study a spectrum of prejudiced attitudes, opinions and behavioural intentions, with particular emphasis on attitudes toward Russians and 'black' African immigrants as a group. The items are presented in Table 1.

RESULTS

The first step in our analyses was to investigate the properties of the items in our instrument. A Principal Component Analysis showed that the attitude statements can be used to form a scale, with a Cronbach's alpha coefficient of 0.93 and 48.4 per cent of the total variance explained by a single factor. Although more complex structures have been found in other studies, the attitudes of Finnish adolescents appear to be unidimensional. Factor loadings ranged from 0.55 to 0.80, as shown in Table 1. The factor structure and loadings were similar in the baseline and follow-up surveys in both experimental and control conditions. Based on the findings from the Principal Component Analysis, we decided to measure intergroup attitude as a single variable in which each student's score consisted of the sum of item scores. Each item was scored from one (least tolerant response) to five (most tolerant response, cf. Table 1). The scale scores thus ranged from 17 to 85 with a midpoint of 51. The correlation between the baseline and follow-up scale scores was $r = 0.86$ ($N = 1480$).

In order to evaluate the hypothesised effects of extended contact, we performed an analysis of covariance on follow-up scale scores with the baseline score as covariate and ethnic density (three levels), gender and experimental group (experimental versus control) as independent variables (cf. Table 2). The main effects of gender and experimental group were statistically significant. Both baseline and follow-up scores seemed to be lowest in the first school pair (highest ethnic density) and highest in the last pair (lowest ethnic density) but the main effect for ethnic density was not statistically significant. No interaction effects could be observed. Experimental condition had a significant main effect ($F(1,1468) = 15.3$, $p < 0.001$) also in an

Table 1. Intolerance scale items and factor loadings (Principal Component Analysis) of baseline survey for the total sample

Items	Factor loadings
1. It would be great if there would be more pupils from other countries in school.	-0.80
2. I prefer not to be (socialise) with foreign pupils in school.	0.69
3. Foreigners should try to become as much like Finns as possible, even if it would mean that they have to abandon their own language and culture.	0.65
4. Foreigners representing some cultures and nationalities strongly increase problems like crime, drugs, illnesses etc. in our country.	0.65
5. I would not mind to have a qualified member, knowledgeable in Finnish, representing some other nationality, religion or skin colour as my teacher.	-0.71
6. Foreigners can blame themselves if they are scorned.	0.72
7. Foreigners should be able to follow their own customs without being bullied/teased.	-0.62
8. Many foreigners come to Finland just to exploit our social benefits.	0.69
9. I do not approve of using names that might hurt people representing another nationality, religion or skin colour.	-0.72
10. If unemployment is going up, part of the foreigners should be sent away from Finland.	0.75
11. I think it would be great to have many foreigners living in my neighbourhood.	-0.79
12. People have the right to keep people of a certain culture and nationality away from their neighbourhood.	0.65
13. Immigrants who come to Finland should be guaranteed the same standard of living as to our own population.	-0.67
14. I would not like some Africans to move to the home nearest to me.	0.82
15. I would not like some Russians to move to the home nearest to me.	0.68
16. I think it is very natural that people marry someone from a different 'race'.	-0.55
17. If I get mad, I may sometimes call him/her bad names referring to his/her nationality or skin colour.	0.62

equivalent three-way ANOVA for change scores as well as in an equivalent three-way ANCOVA for change scores with the baseline score as a covariate (main effect for experimental condition $F(1,1467) = 12.7, p < 0.001$). The most conservative test of intervention effect (experimental condition) uses the interaction between ethnic density (school pair) and experimental group as the error term, thus including between-school variance (individual non-independence within schools) as well as between-subject variance. In this calculation $F(1,2) = 31.42, p < 0.05$. The experimental effect is easily observable in Figure 1, where baseline and follow-up scale scores are shown by gender and school. While the scores in control groups are mostly deteriorating or at best stable, the scores in the experimental groups are all stable or improving. For each gender pair the difference in slopes is consistent, despite the variations in baseline scores.

As shown both in Figure 1 and in Table 2, the mean follow-up intergroup attitude scale scores indicate moderate levels of tolerance in all schools, especially among girls. Overall, 47.1 per cent of the boys and 17.7 per cent of the girls received an intergroup attitude scale score below the midpoint. Both baseline and follow-up attitude scores are more positive among girls.

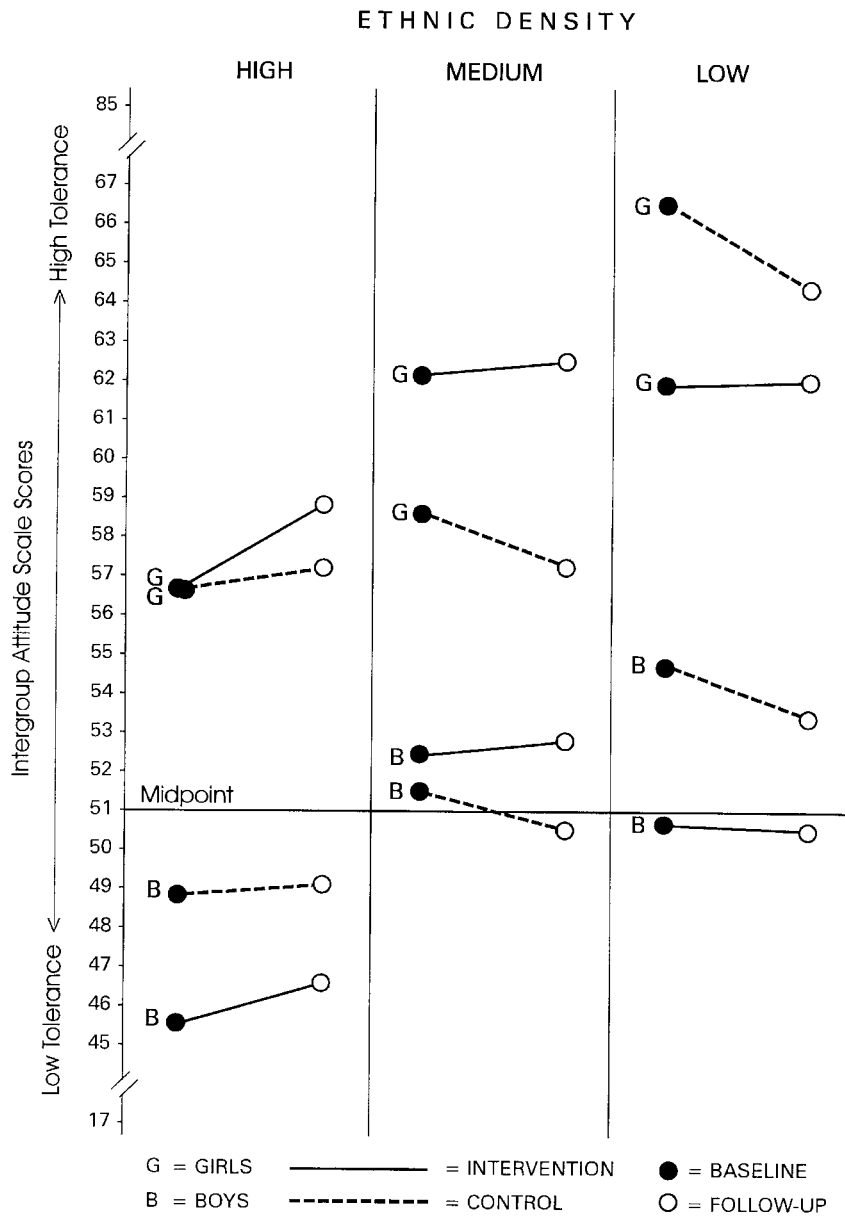


Figure 1. Intergroup attitude change by gender, ethnic density, and experimental condition

DISCUSSION

We are well aware of the limitations to inference which result from the non-independence of responses within classrooms and schools. Using schools rather than students as units of random assignment introduces the possibility of group effect.

Table 2. Observed follow-up means and analysis of covariance (ANCOVA) on follow-up tolerance scale scores with the baseline score as covariate (gender by ethnic density by experimental group)

Group	<i>n</i>	<i>M</i>	<i>SD</i>	ANCOVA, main effects	
				<i>F</i>	<i>df</i>
Gender:					
Female	734	60.43	11.74	12.56*	1,1467
Male	746	50.48	13.51		
Ethnic density:					
High	507	52.90	13.84	2.57	2,1467
Medium	400	55.19	12.79		
Low	573	57.80	13.54		
Experimental group:					
Control Schools	844	55.51	13.35	12.71*	1,1467
Intervention Schools	636	55.29	13.94		

* $p < 0.001$. All interactions were nonsignificant.

Although schools were randomised to conditions, this was a quasi-experimental study and the statistical analyses at the individual level must be qualified by that fact. Despite these limitations, however, we believe our research design was the strongest and most reasonable alternative for the resources which were available. The sample sizes are relatively large and the level of statistical significance for the experimental effects is very high. It is noteworthy that we found significant experimental effects in the test in which the school pair by experimental group interaction variance was used as the error term, as that analysis presumably takes individual non-independence into account. As Figure 1 shows, in each school pair and for both genders, the findings were consistent with the hypothesised effects of extended contact on intergroup attitudes. The intergroup contact experienced by the role models fulfilled three of the conditions for successful intergroup contact: high acquaintance potential, equal status of participants, and generalisation of positive attitude from the individual outgroup member to the outgroup as a whole.

Of all the various conditions for successful intergroup contact outlined by contact theorists, it is the social and institutional support for such contact which is most apparently lacking in Finnish society. Our intervention was specifically designed to influence perceptions of social support for intergroup contact in a school setting. In the relatively harsh attitude climate of the intergroup context studied, fears of sanctions for violating intolerant group norms could be strong, especially among peers in the age group studied. Clearly, mere observation of the cross-group friendships neither evoke such fears nor the interaction anxiety usually accompanying real contact situations strongly enough to block generalisation to the outgroup as a whole. Learning from the intergroup experiences of other ingroup members significantly influenced trends in intergroup attitudes also among students who had very few possibilities to form intergroup friendships themselves (density of immigrant students in school <5 per cent).

The technique used in this study eliminated some of the problems inherent in the four studies reported by Wright *et al.* (1997). First, the before–after between-subjects experimental design eliminated all ambiguities concerning direction of causality. Second, the experimental manipulation of the independent variable (experimental condition) took place in a real-life context with real-life in- and outgroups. No artificial construction of groups or intergroup conflict was needed. Third, each experimental condition involved a sufficient number of subjects to allow for reliable statistical analysis of the results. Finally, no quasi-experimental time-series were needed: Wright *et al.* (1997) note that ‘it is impractically costly to conduct a series of control sessions in which there are no interventions’ (p. 81). In our design, adequate control groups could be used.

It should be noted that our control groups did not receive any kind of manipulation to control for the possibility of social desirability effects. While the surveys and peer modelling in the experimental schools were not conducted with reference to one another, it is reasonable to suppose that some students perceived the connection and that some of the positive effect on intergroup attitudes in the experimental schools was simply the result of a stronger perception that intolerant attitudes are socially undesirable. In future studies it would be helpful to include manipulations for control groups in which social desirability influences are provided. However, the peer modelling in the experimental groups was itself a kind of social desirability manipulation. In a sense, social desirability effects can be regarded as a direct and desirable consequence of the extended contact intervention whose goal is precisely to create such new norms against expressions of prejudice. Nevertheless, it would be interesting to compare the effect of this kind of intervention to the effect of other similar manipulations (e.g. having teachers make statements about the desirability of tolerance).

Another issue concerns the kind of changes that were produced. Kelman (1958, 1961) has extensively discussed the differences in the persistence of changes which result from compliance, identification and internalisation. The changes produced in this study are most likely in the second category and thus may be less enduring than changes which are internalised. Additional influences may be necessary to produce sustained change in intergroup attitudes. Continuing peer modelling communication might extend the effects, but the attitude changes will probably not become persistent until they are reinforced by actual (not extended) contacts with foreigners. Where intolerance is prevalent, short-term attitude change may be needed to prepare young people for positive intergroup contact. As many scholars have noted (e.g. Allport, 1954; Pettigrew, 1971; Cialdini *et al.*, 1991), initial expectations may strongly influence the outcome of intergroup contacts. Inducing positive instead of negative affect into expected intergroup contact situations is especially effective for those who still have no strong negative emotions towards outgroups (Aboud, 1988; Brown, 1995). Thus, in a situation where there are relatively small numbers of minority members and young people are just beginning to make contact (as in schools in Finland), the use of modelling to produce short-term attitude change may be a good way to influence the nature and direction of new intergroup interactions so as to optimise the effects of contact. Results from this study indicate that peer modelling in printed stories, involving examples of both intergroup friendship and attitude change, can change the intergroup attitudes that were measured in the scale scores, at least among those who feel close enough to the exemplar and whose intergroup norms are not too firmly established.

The significant gender differences in outgroup attitudes observed in this sample reflect the fact that males of all age groups in Finland, regardless of level of education, have systematically shown more intergroup prejudice than females (Jaakkola, 1994; Helakorpi *et al.*, 1996). These gender differences may reflect more or less universal value differences between men and women. Individuals' values relate systematically to their attitudes and behaviour (Smith & Schwartz, 1997). When values have been studied directly, gender differences predictable from sex-typed socialisation and role experiences have been found in samples from 47 countries. Meta-analyses from these studies reveal that differences between men and women are strongest for benevolence and power value types; women attribute greater importance to benevolence values and less importance to power values than do men (Smith & Schwartz, 1997). There is also a substantial degree of agreement internationally concerning the psychological characteristics differentially associated with men and with women. In a comparative study of 25 countries, male and female stereotypes were most different in the Netherlands, Finland, Norway and Germany. Across all countries, nurturance, succorance, deference and abasement were associated with women, and dominance, authority, aggression, exhibition and achievement with men (Best & Williams, 1997). To the extent that these stereotypes are internalised as part of one's self-image, they are likely to be reflected also in attitudes towards ethnic outgroup members.

In accordance with previous scales used in Finland (Jaakkola, 1989, 1994), the scale used in this study measured blatant prejudice more than subtle prejudice (Pettigrew & Meertens, 1995). Blatant prejudice refers to overt expressions of intolerance. Subtle prejudice is expressed more indirectly, for example by attributing low social status among minorities to their own cultural deficiencies. As Pettigrew and Meertens (1997) note, 'Western European countries have been developing a norm against blatant prejudice . . . The norm is stronger and more deeply established in some nations . . . than in others . . . Subtles comply with the norm and express their negative intergroup views only in ostensibly non-prejudiced ways' (p. 73). Blatant prejudice is common in Finland and norms against it may not be sufficiently internalised for the distinct phenomenon of subtle prejudice to become widespread. However, attitude measures and manipulations in future studies in Finland might attempt to distinguish between these two forms of prejudice. Further studies will also be helpful to study long-term effects of peer modelling and to specify the role of the anxiety-reducing elements in extended contact. In addition, it will be important to study the extent to which changes in attitude scores are associated with changes in behaviour, as indicated, for example, by reports from victims of intolerance.

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