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Acculturation, well-being and classroom behaviour among white British and British Asian primary-school children in the south–east of England: Validating a child-friendly measure of acculturation attitudes

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ABSTRACT

Using a sample of white British and British Asian primary-school children ($N = 386$, aged 5–11 years), we measured acculturation attitudes (own and perceived outgroup), correlated constructs (ingroup and outgroup affect and identification) and relevant outcomes (self-esteem, classroom demeanour) in a structured interview to validate a customised, child-friendly measure of acculturation attitudes based on Berry's framework. Scale items measuring desire for culture maintenance and intergroup contact loaded onto the predicted factors, were internally reliable and showed concurrent validity with affect and identification. The predictive utility of measures was demonstrated in associations between children's acculturation attitudes (or perceived discrepancies with those of the outgroup) and outcomes such as self-esteem and teacher ratings of emotional symptoms.

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1. Introduction

Currently in Britain there is heightened public concern about immigration and acculturation, highlighted in a recent case of two former racist trouble-makers turned activists for inter-ethnic friendship and understanding (Brown, 2006). This illustrates two truths about immigration, namely the risk of conflict based on 'culture shock' and the potential for harmonious relations through contact and positive attitudes. Research has shown that adults and adolescents can hold acculturation attitudes and strategies to deal with their situation in an inter-ethnic setting, and that a person's acculturation orientation influences their psychological adaptation (e.g. Berry, 1997; Liebkind, 2001; Phinney, 1990; van Oudenhoven, Prins, & Buunk, 1998). However, little is known about how young children experience acculturation. This is likely to be an important issue since, as children come into greater contact with the wider world during middle childhood, they will increasingly need to negotiate how they fit into multi-cultural and ethnically diverse societies (Fuligni, Witkow, & Garcia, 2005).

To our knowledge, a valid measure of acculturation orientations for use with young children does not exist. Nonetheless, there is reason to believe that young ethnic minority children might hold acculturation orientations that have implications

for their psychological development. Developmental psychology has shown that social categories (e.g. ethnicity, nationality) are meaningful for young children (e.g. Aboud, 1988; Barrett, 2006; Nesdale, 2001; Rutland, 2004; Rutland et al., 2007; Rutland, Cameron, Bennett, & Ferrell, 2005; Rutland, Cameron, Milne, & McGeorge, 2005; Sani & Bennett, 2004) and that the acquisition of an ethnic identity is a primary goal during middle childhood. This research suggests that, as with adults and adolescents, acculturation may be a measurable psychological construct among young children that has implications for their psychological adaptation.

The present study, conducted in the United Kingdom, brings together the psychology of acculturation with that of intergroup relations (Berry, 1999; Liebkind, 2001) to examine the ethnic and inter-ethnic attitudes and experiences of white British and British Asian young children. Specifically, we sought to validate a child-friendly measure of acculturation attitudes based on Berry's framework (e.g. Berry, 2002) whilst acknowledging some of the conceptual and methodological pitfalls (e.g. Rudmin, 2003); to capture the important intergroup aspect of such acculturative positions (e.g. Bourhis, Moïse, Perreault, & Senécal, 1997; Horenczyk, 1996; Zagefka & Brown, 2002); and to predict relevant outcome variables relating to self-esteem and classroom behaviour from these acculturation measures.

Acculturation can be defined as cultural change in one or more groups as a result of intergroup contact (Berry, 1990). Although it is generally accepted as a bi- or multi-directional process between the acculturating parties, research has usually placed greater emphasis on the minority in the acculturative setting (Berry, 2001: p. 616). Psychological analyses of acculturation have striven to describe and explain these adaptive processes and to identify the most desirable and beneficial modes of coexistence: is the assimilation of minorities into the majority group or some more multi-cultural solution the most promising recipe for individual well-being and harmonious intergroup relations (for a critical historical overview, see Rudmin, 2003)?

1.1. Berry's acculturation framework

Many psychological measures of acculturative attitudes follow a framework set out by Berry (e.g. Berry, 2002; Berry, Kim, Power, Young, & Bujaki, 1989), which proposes that adequate operationalisations should account for the desire to maintain one's own ethnic culture and heritage, and for the desire to have contact with the outgroup. Based on their endorsement of these undertakings, individuals can then be allocated to four broad 'acculturation strategies', often called marginalisation (low desire to maintain culture or have intergroup contact), separation (maintaining ethnic culture but avoiding contact), assimilation (shedding ethnic heritage and seeking extensive contact) and integration (high desire for both culture maintenance and intergroup contact). Among these, the 'integration' strategy is usually thought to be associated with the most benign acculturative outcomes, and 'marginalisation' with the worst (e.g. Berry, 1997: p. 24; but see Rudmin, 2003). There is now a large tradition of immigration research using Berry's framework (Berry, 1995, 2002; Berry et al., 1989; Rudmin, 2003), but some analyses have suggested that certain assumptions of the approach should be regarded with caution.

Conceptual and methodological criticisms have been levelled against the fourfold classification introduced by Berry (e.g. Berry et al., 1989). These four 'strategies' have since often been treated as constructs in their own right, to be measured directly. This creates problems in the internal logic of the framework, particularly with regard to the 'marginalisation' quadrant (see Rudmin, 2003), as well as considerable difficulty in the measurement of acculturation attitudes. Whereas the bi-dimensional approach uses questions such as "I am interested in maintaining or developing Chinese traditions" (Ryder, Alden, & Paulhus, 2000), a direct measure of the four strategies requires items like "I would like to celebrate the Jewish holidays without abandoning the holidays we used to celebrate in the Soviet Union" (Roccas, Horenczyk, & Schwartz, 2000). Empirically, there is evidence that the preferences expressed by respondents vary according to the measure used (Rudmin & Ahmadzadeh, 2001); methodologically, the quality of many items used to measure acculturation strategies according to the fourfold classification is questionable on account of the need essentially to ask two questions in a single item (Rudmin & Ahmadzadeh, 2001) and a failure to fulfil the criteria of relevance and motivation for adaptation (Berry, 1999, 2001; Berry & Sam, 2003). For example, religion is often not a suitable arena for cultural adaptation, whilst marriage or burial customs may not yet be a concern for very young children. There is thus a clear case in favour of measuring desire for culture maintenance and contact using simple, single-barrelled items on topics relevant to respondents in a particular cultural context.

Empirical gaps in our knowledge of psychological acculturation extend to the selection of samples and outcome measures. Many of the most widely cited studies have been conducted in countries with a dominant population of relatively recent migrants, such as Canada, the USA, Australia and Israel, with research from other contexts rather under-represented (see Rudmin, 2005). Moreover, such investigations have typically examined the acculturative attitudes of adolescents or adults, whilst little is known about children's views on culture and adaptation (but see Costigan & Su, 2004; Knight, Kagan, Nelson, & Gumbiner, 1978; Pawliuk et al., 1996; van de Vijver, Helms Lorenz, & Feltzer, 1999). Finally, outcome measures have traditionally focused on 'acculturative stress' (see Berry, 1997: p. 13) and neglected the relationship between acculturation and more general indices of well-being and adjustment (Rudmin & Ahmadzadeh, 2001). It is therefore necessary to select outcome measures that have validity beyond the acculturation context itself (Liebkind, 2001; Ward, 1996).

1.2. Intergroup aspects

Social-psychological contributions to the field have argued that acculturative outcomes depend also on the match or mismatch between the attitudes of acculturating groups (Bourhis et al., 1997; Horenczyk, 1996; Zagefka & Brown, 2002).

There are many current-affairs examples of how much these intergroup acculturation attitudes matter, including a prominent debate over the compatibility of eastern and Islamic culture with secular western ideologies (Page, 2006; Walt & McAllister, 2005).

1.2.1. The interactive acculturation model (IAM)

One attempt to account systematically for the impact of intergroup acculturation attitudes is made in the interactive acculturation model (IAM) proposed by Bourhis et al. (1997). The model takes Berry's four-way classification of acculturation strategies as its starting point and assumes that specific intergroup combinations of these strategies vary in their degree of 'acculturative fit'. 'Consensual fit', therein, is assumed to be conducive to the most benign outcomes, 'problematic fit' gives rise to some degree of tension, and 'conflictual fit' causes serious acculturative problems. A detailed breakdown of majority–minority combinations of acculturation attitudes and their presumed fit is available in Bourhis et al. (1997: Fig. 4). Predictions regarding intergroup combinations of the four original stances can be summarised as follows: fit is 'consensual' if both the majority and the minority favour 'integration' or 'assimilation'; 'conflictual' if the majority society advocates the 'separation' or 'marginalisation' of the minority, or if the minority itself adopts a 'separation' strategy; and 'problematic' in all other cases.

A number of studies (Bourhis & Dayan, 2004; Montreuil & Bourhis, 2001; Montreuil & Bourhis, 2004) validate the authors' host community acculturation scale (HCAS) in Quebec and Israel by demonstrating how endorsement of the different orientations is associated with different intergroup attitudes, but they provide no data for minority attitudes and hence no calculation of acculturative fit. Barrette, Bourhis, Personnaz, and Personnaz (2004) show that majority and minority members favouring 'integrationist' or 'individualist' positions displayed less ingroup bias and more favourable intergroup attitudes than 'separationist' or 'marginalised' individuals, but do not analyse unique combinations of majority and minority attitudes as suggested by Bourhis et al. (1997). Moreover, the investigation covered only a single domain of acculturation, namely intra- or inter-ethnic marriage.

1.2.2. Discrepancy fit

As an alternative to the categorical approach of the IAM, Zagefka and Brown (2002) propose predicting relevant outcomes from the magnitude of discrepancies in intergroup acculturation attitudes. The absolute difference between own and perceived outgroup acculturation attitudes outperformed the IAM's categorical operationalisation of fit in the prediction of some related intergroup measures. A similar superiority of the discrepancy measure over the IAM categorisation was found in the prediction of negative attitudes towards minorities in Belgian and Turkish samples (Zagefka, Brown, Broquard, & Leventoglu Martin, 2007). Finally, Pfafferott and Brown (2006) successfully used the discrepancy measure of fit to predict intergroup outcomes (tolerance and intergroup relations) with minority and majority samples in Germany, and a general measure of life satisfaction among minority group members. It therefore appears as if at least some acculturative outcomes could be predicted from this simple subtractive measure, which avoids the conceptual pitfalls of the four-way classification and the methodological difficulties of double-barrelled questions.

A further development of these ideas may be to consider not merely the absolute magnitude of intergroup discrepancies, but also their direction (Meeus & Vanbeselaere, 2006). Relevant outcome measures might vary, for example, with whether an immigrant group sees the majority society as favouring more or less intergroup contact than its own members. A study reported by Roccas et al. (2000) measured acculturation attitudes and well-being among Russian immigrants to Israel, and found signed intergroup discrepancies in attitudes towards the 'assimilation' and 'separation' strategies to predict well-being, at least among those group members that valued conformity. But their approach suffers from the aforementioned psychometric weaknesses in measuring the four acculturation strategies directly, and does not have the elegant simplicity of assessing discrepancies in attitudes towards culture maintenance and contact. The present study contributes further to this burgeoning research literature by comparing the predictive utility of the IAM and subtractive approaches.

1.3. The present study

The aim of the research reported here was to contribute a rare study of young children's acculturation attitudes. Whilst conscious of the limitations of the Berry framework as discussed above, we sought to validate its use on a child sample using appropriate bi-dimensional measures, and to examine the predictive utility of these acculturation measures and intergroup discrepancies in acculturative attitudes for self-assessed and teacher-assessed well-being and classroom behaviour.

The research was conducted with a sample of primary schools in the south–eastern English counties of Kent and Sussex. A sample of white British children and those with a South Asian background, matched on age and gender whenever possible, was recruited. There is a long history of immigration into the United Kingdom from states like India and Pakistan, rooted in British colonialism and gaining momentum in the mid-20th century. Today the south–east of England has a fair number of settled immigrant communities from South Asia. The region's Indian population is estimated in excess of 105,000 people, with residents of Pakistani (65,000) and Bangladeshi (19,000) origin making up the next most numerous groups. Overall, people with Asian backgrounds account for about 2.7% of the regional population (Large & Ghosh, 2006).

To summarise our expectations of the data, we first sought to validate our measure of children's acculturation attitudes. We expected the items relating to culture maintenance and those about intergroup contact to load on distinct factors, sought satisfactory internal reliability of the two scales, and anticipated concurrent validity to be indicated by the pattern of

correlations between the acculturation dimensions and other relevant measures. Some authors (e.g. Horenczyk, 1996; Liebkind, 2001; Phinney, 2002) have discussed the idea that ethnic and national identification may approximate the degree of internal acculturation – the individual's sense of kinship with each of the acculturating groups. It appears reasonable, then, to predict a positive association between identification with a minority group and the desire to maintain its cultural traditions on the one hand, and between identification with an outgroup and the desire for intergroup contact on the other (see Phinney, Horenczyk, Liebkind, & Vedder, 2001). Similarly, we expected concurrent validity to be indicated by a positive correlation between affect towards the outgroup and desire for intergroup contact, and among minority respondents by an association between ingroup affect and desire for culture maintenance. In terms of preferred acculturation strategies, we expected more children to favour both culture maintenance and inter-ethnic contact (i.e., the 'integration' strategy), and very few children to endorse the opposite (the 'marginalisation' position), in line with Berry's (2002) predictions.

Second, we had some broad expectations about how acculturation attitudes and intergroup discrepancies in acculturation attitudes would relate to our outcome measures of self-esteem and classroom behaviour. There is some previous evidence for a relationship of self-esteem with a preference for the 'integration' position on acculturation, whilst 'marginalisation' may be associated with lowered self-esteem (Phinney, Chavira, & Williamson, 1992). With regard to classroom demeanour, emotional and behavioural problems in mixed-ethnicity schools ought to be rarer when intergroup relations are harmonious. This should mean that acculturation attitudes favour inter-ethnic contact, the outgroup is perceived to desire such contact, and the perceived discrepancy between own and outgroup acculturation attitudes is low. Since accounts of intergroup acculturation attitudes have usually considered these to predict intergroup outcomes (Bourhis et al., 1997; Zagefka & Brown, 2002), there is no concrete empirical basis to predict their association with personal conduct; these latter hypotheses should therefore be regarded as tentative and their examination as exploratory.

2. Method

2.1. Participants

A total of 398 primary-school children in Kent and Sussex between the ages of 5–11 years participated in this study after consent for participation had been obtained from the school headteacher, the parents, and from the pupils themselves. Ten of these children had a mixed-ethnicity background (usually involving one Asian and one white British parent), and their responses are not included in the present analysis. Two children were excluded because it could not be established whether they had been born in the United Kingdom or abroad. Among the remaining 386 children, there were 198 boys and 188 girls; 180 children (47%) were from a white British background, 40 (10%) had travelled to England in their lifetime and were thus 'first-generation' immigrants, and 166 (43%) were immigrants of the second or later generations. The majority of immigrant children were Indian (42% of the overall sample); others were Pakistani (4%), Bengali (4%), Sri Lankan (2%) and Nepali (1%). The mean age of participants was 7.55 years, the standard deviation $s = 1.51$. The white British (majority) and British Asian (minority) groups were well balanced in terms of age and gender distributions. The preponderance of British Asian minority students at the 20 schools that assisted in this study varied widely, from less than 1% to more than 50%.[1] All children understood the English questions without the need for an interpreter.

2.2. Design, materials and procedure

A questionnaire was assembled and extensively piloted to serve as the basis of a structured interview procedure. The instrument was modular and covered a broad range of attitudinal and diagnostic measures, not all of which are relevant to the present report (details available from the authors). Outcome measures, including the self-esteem measure, were always taken before the attitudinal scales that served as predictors. Within these two broad blocks, measures were counterbalanced. Visual resources, including pictorial representations of response scales as well as colourful cartoon-style collages showing white-skinned and brown-skinned children, were prepared both in order to facilitate participation and to ensure that participants remained focused throughout the interview.[2] Each interview was carried out in a quiet and relatively private area on school premises. The interview schedule and the pictorial scales within it were visible to the child throughout the interview, but questions were read out by the interviewer to help children with poor reading. All participants were assured of confidentiality and anonymity (through the use of a participant number) and received debriefing appropriate to their age and understanding.

2.2.1. Outcome measures

2.2.1.1.Self-esteem. We used the global sub-scale of Harter (1982) Perceived Competence Scale for Children. Six items (Cronbach's $\alpha = 0.63$) presented participants with two response alternatives (e.g. "Some kids are not happy with the way they do a lot of things, but other kids think the way they do things is fine"). Children first picked the statement that best described them and then decided whether this was "a little bit true" (signified by a small tick box) or "very true" (signified by a large tick box) of them, resulting in a self-rating on a four-point scale. Three items began with the statement that was indicative of high self-esteem, three mentioned it second.

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[1] The impact of these contextual factors on the variables of interest and the relationships between them is the subject of ongoing analysis and beyond the scope of the present investigation.

[2] Copies of the interview schedule and examples of other pictorial aids are available from the first author on request.

2.2.1.2.Teacher ratings of classroom behaviour. Goodman's (1997) Strengths and Difficulties Questionnaire (SDQ) was filled in by a teacher, usually the form tutor, who knew the child well. The response format of the SDQ is very simple, merely asking whether a relevant descriptive statement about the child was "not at all true", "somewhat true" or "certainly true". This provided measures of hyperactivity (e.g. "restless, overactive, cannot sit still for long"; Cronbach's $\alpha = 0.87$), conduct problems (e.g. "often has temper tantrums or hot tempers"; $\alpha = 0.73$) and emotional symptoms (e.g. "many fears, easily scared"; $\alpha = 0.81$).

2.2.2. Acculturation attitudes and correlated measures

2.2.2.1.Attitudes towards minority culture maintenance and inter-ethnic contact. Eight items (presented in mixed order) asked about whether minority children should learn their ethnic language, wear traditional clothing, eat traditional foods, celebrate their own holidays, and listen to traditional music or prayer chants[3] (culture maintenance), and whether they should be friends with white English children, play together, and have lunch together with them (contact and participation). All children rated both their own and their perception of the outgroup's views, which were assessed in counterbalanced order. Responses were recorded on five-point scales ("not at all", "a little bit", "in the middle", "quite a bit", "a lot") visualised by images of balloons of increasing sizes. No negatively phrased items were used since pilot work had shown children to have considerable difficulty in reconciling such statements with the response scale.[4]

2.2.2.2.Identification. English (Cronbach's $\alpha = 0.85$) and ethnic identity ($\alpha = 0.67$) were measured using an adaptation of Barrett's (2006) Strength of Identification Scale (SoIS). Four questions asked children about how much they considered themselves a member of the group in question, how proud they were to belong to the group, how important it was to them to be a member, and how they felt about being a member. The former three questions were answered on a four-point scale ("not at all", "a little bit", "quite", "very") represented by an image of balloons of increasing sizes. The last question required a response on a five-point scale represented by schematic 'smiley faces' showing a big frown, a moderate frown, a neutral expression, a moderate smile, and a big smile. The SoIS has no reverse-scaling because of the difficulty involved for children in understanding negatively phrased items.

2.2.2.3.Affect towards other ingroup and outgroup members. This was measured by five-point scales of faces identical to the last scale of the SoIS.

3. Results

The results of analyses conducted to examine the reliability, validity and utility of the child-friendly acculturation measures used in this study are detailed below. Whilst it should be noted that gender differences were not an agenda of this validation study, it will be pointed out where results differed between boys and girls.

3.1. Validation of Berry's acculturation dimensions

Confirmatory factor analysis (CFA) was used in order to determine whether the scales of desire for culture maintenance and desire for contact did indeed load onto the intended dimensions. In the hypothesised two-factor model, items relating to the cultural practices of food, clothing, music (or prayer chants), holidays and languages loaded onto the first factor ("culture maintenance") and had no loadings on the second ("contact"), whereas items on inter-ethnic friendships, play and shared lunches displayed the opposite pattern. The two factors were allowed to covary, but the error terms associated with the measurement items were not. The hypothesised model received good support. Although the chi-squared statistic on model fit suggested a significant discrepancy between the hypothesised model and the observed data ($\chi^2(19) = 40.65$, $p < 0.01$), indices less sensitive to sample size (see, for example, Klem, 2000; Kline, 2005) demonstrated very good fit (CFI = 0.97, SRMR = 0.05, RMSEA = 0.06). Fig. 1 shows the model with the standardised parameters.

The internal reliability of these scales was examined further using Cronbach's alpha. The culture maintenance sub-scale ($\alpha = 0.74$) and the contact sub-scale ($\alpha = 0.73$) both had satisfactory reliability. In order to check whether internal reliability was adequate specifically among younger respondents, the reliability analysis was repeated separately for children aged 5–7 and 8–11 years old. Reliability remained good for the younger children (culture $\alpha = 0.73$, contact $\alpha = 0.65$), albeit lower than among the older participants (culture $\alpha = 0.76$, contact $\alpha = 0.81$). Since the magnitude of item-factor associations was not relevant to the remainder of the analyses, composite scores for the two acculturation dimensions were calculated for each participant simply by taking the mean of scores on their indicators. Descriptive statistics on acculturation attitudes for each of the three sub-samples are given in Table 1. Children's attitudes towards minority culture maintenance and intergroup contact were generally positive: most group means approached 4.00 on a five-point scale, and only majority attitudes towards minority culture maintenance were slightly lower.

The pattern of correlations between these acculturation attitudes and the identification and affect measures demonstrated concurrent validity. As shown in Table 2, the desire for inter-ethnic contact was positively related to liking of

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[3] Since some strict interpretations of Islam discourage music except for prayer, this amendment to the question about music was occasionally required in order to capture attitudes towards culture maintenance and avoid a conflation with religious prescriptions.
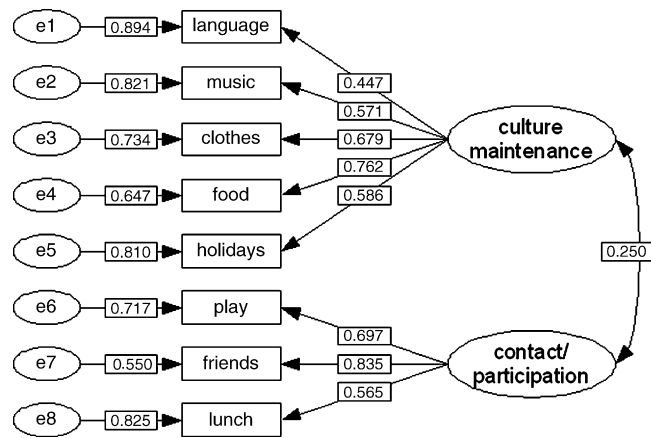[4] Internal reliability coefficients for these custom acculturation scales will be presented in Section 3.

Fig. 1. Standardised estimated factor loadings. All parameters are significant ($p < 0.05$).

Table 1
Mean acculturation attitudes including self-ratings and outgroup ratings; standard deviations in parentheses

		Own	Perceived outgroup
Majority	Culture maintenance	3.576 (0.988)	3.744 (1.002)
	Contact	4.179 (0.946)	3.794 (1.078)
First-generation minority	Culture maintenance	3.764 (0.973)	3.677 (1.014)
	Contact	3.940 (1.054)	3.923 (0.981)
Later-generation minority	Culture maintenance	3.693 (1.002)	3.327 (1.061)
	Contact	3.815 (1.073)	3.784 (1.087)

Table 2
Correlations between acculturation attitudes, liking, and identification

		Desire for culture maintenance ($\alpha = 0.745$)	Desire for contact ($\alpha = 0.730$)
Liking of outgroup (single item)	Majority	0.027	0.222*
	First-generation minority	−0.017	0.460*
	Later-generation minority	0.087	0.220*
Liking of ingroup (single item)	Majority	−0.066	0.009
	First-generation minority	−0.068	−0.148
	Later-generation minority	0.288*	0.268*
English identification ($\alpha = 0.851$)	Majority	−0.007	0.042
	First-generation minority	−0.051	0.419*
	Later-generation minority	−0.096	0.100
Ethnic identification ($\alpha = 0.666$)	Majority	0.069	0.040
	First-generation minority	0.168	0.116
	Later-generation minority	0.234*	0.234*

Asterisked correlations are significant at the 5% level.

the outgroup in all sub-samples (majority $r = 0.22$, $p < 0.01$; first-generation minority $r = 0.46$, $p < 0.01$; later-generation minority $r = 0.22$, $p < 0.01$). However, the correlation between desire for contact and positive outgroup affect was significant for white British boys ($r = 0.28$, $p < 0.01$) but not for white British girls ($r = 0.08$, ns), whilst the opposite dissociation was observed among first-generation minority participants (boys $r = 0.36$, $p < 0.1$; girls $r = 0.71$, $p < 0.01$). First-generation minority girls also displayed an association between desire for intergroup contact and English identification ($r = 0.60$, $p < 0.05$), whilst the same correlation did not reach significance among first-generation minority boys ($r = 0.24$, ns).[5] Among later-generation minority children there were unexpected relationships of desire for contact with liking of the ingroup ($r = 0.27$, $p < 0.01$) and ethnic identification ($r = 0.23$, $p < 0.01$). The latter association appeared to be exclusive to boys (boys $r = 0.40$, $p < 0.001$; girls $r = 0.02$, ns). The culture maintenance scale had no significant correlations with other variables

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[5] The small size of the first-generation minority sub-sample should be taken into account when judging the import of these gender differences.

Table 3
Acculturative strategies among participants and perceived outgroup strategies

		Own		Perceived outgroup	
		Frequency	Percent	Frequency	Percent
Majority	Integration	110	61.1	104	57.8
	Assimilation	38	21.1	24	13.3
	Separation	13	7.2	39	21.7
	Marginalisation	18	10.0	13	7.2
First-generation minority	Integration	23	57.5	23	57.5
	Assimilation	8	20.0	5	12.5
	Separation	5	12.5	8	20.0
	Marginalisation	3	7.5	3	7.5
Later-generation minority	Integration	85	51.2	82	49.4
	Assimilation	40	24.1	39	23.5
	Separation	30	18.1	16	9.6
	Marginalisation	11	6.6	29	17.5

among majority and first-generation minority children, but was associated among later-generation minority children with liking of the ingroup ($r = 0.29$, $p < 0.001$) and ethnic identification ($r = 0.23$, $p < 0.01$). An examination of gender differences revealed that desire for culture maintenance was correlated with positive ingroup affect specifically among boys (boys $r = 0.42$, $p < 0.001$; girls $r = 0.14$, ns), whilst the association with ethnic identification was observed among girls (boys $r = 0.18$, ns; girls $r = 0.28$, $p < 0.05$). Additionally, desire for culture maintenance correlated with outgroup affect among later-generation minority boys ($r = 0.30$, $p < 0.01$), but not girls ($r = -0.08$, ns).[6]

Individual scores on the acculturation scales were mapped onto the four broad 'strategies' proposed in the Berry (2002) framework by means of a scale mid-point split classifying cases as 'high' or 'low' on these dimensions. The scale mid-point itself was conservatively allocated to the 'low' category. Accordingly, children who scored above 3.00 on both acculturation scales were assumed to follow an 'integration' strategy, those who scored 3.00 or below on both scales were classified as 'marginalised', those who scored 3.00 or below on the culture maintenance scale and more than 3.00 on the contact scale were categorised as 'assimilationist', and those who scored more than 3.00 on the culture maintenance scale and 3.00 or less on the contact scale were defined as 'separationist'. Table 3 shows the distribution of strategies among the sample. In line with expectations, the 'integration' strategy was by far the most popular in all three sub-samples, followed universally by the 'assimilation' stance. The remaining two strategies occupied third and fourth place.

3.2. Intergroup considerations

Outgroup items relating to food, clothes, music, holidays and language combined to a reliable measure of the perceived outgroup desire for culture maintenance (Cronbach's $\alpha = 0.76$), whilst those concerning inter-ethnic play, lunch and friendship formed an equally consistent index of the perceived outgroup desire for contact ($\alpha = 0.72$). There was a reliable correlation between these dimensions ($r = 0.29$, $p < 0.001$). The familiar fourfold classification was applied to track whether children perceived the outgroup as favouring 'integration', 'assimilation', 'separation' or 'marginalisation' strategies. Again, scores of 3.00 or less were considered low, scores above 3.00 were considered high. The preferred outgroup strategies as perceived by the children in the three sub-samples are also listed in Table 3. In line with their own strategies, most children appeared to believe that the outgroup, too, favoured 'integration'. Beyond that, however, outgroup perceptions diverged from own preferences: 'separation' was the second most popular guess at outgroup strategies among majority and first-generation minority children, whilst a surprisingly large percentage of later-generation minority children (17.5%) believed that the majority wanted them 'marginalised'.

We followed three alternative methods to construct indices of fit between participants' own acculturation attitudes and their perceived outgroup attitudes. The first used Bourhis et al. (1997) interactive acculturation model, which allocates specific combinations of majority and minority positions within the fourfold classification of acculturation strategies to one of three levels of fit: consensual, problematic, and conflictual. The preponderance of fit categories among the three sub-samples is shown in Table 4. Although most children exhibited 'consensual' fit, there were more cases of 'conflictual' than 'problematic' acculturative fit in every group. The split between children with 'consensual' fit and those with 'problematic' or 'conflictual' fit was about half-and-half throughout the sample.

As an alternative to the categorical approach of the IAM, Zagefka and Brown (2002) have proposed a discrepancy fit index, which relies upon the absolute discrepancy between own and outgroup acculturation attitudes as a measure of inverse fit. The first two rows of Table 5 show descriptive statistics on these fit indices.

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[6] There was a tendency for these correlations to be stronger among the older children, but since age differences were not an aim of this investigation, no further analysis was undertaken in this direction.

Table 4
Acculturative fit according to the IAM

		Frequency	Percent
Majority	Consensual	94	52.2
	Problematic	29	16.1
	Conflictual	56	31.1
First-generation minority	Consensual	21	52.5
	Problematic	7	17.5
	Conflictual	11	27.5
Later-generation minority	Consensual	78	47.0
	Problematic	30	18.1
	Conflictual	58	34.9

Table 5
Descriptive statistics on discrepancy fit indices

	Group	Range	Mean	S.D.
Absolute 'culture maintenance' discrepancy	Majority	0.00–3.20	0.658	0.552
	First-generation minority	0.00–2.20	0.651	0.521
	Later-generation minority	0.00–4.00	0.759	0.738
Absolute 'contact' discrepancy	Majority	0.00–4.00	0.694	0.782
	First-generation minority	0.00–3.00	0.496	0.666
	Later-generation minority	0.00–3.33	0.603	0.719
Signed 'culture maintenance' discrepancy	Majority	−3.20–2.40	−0.169	0.843
	First-generation minority	−2.00–2.20	0.087	0.836
	Later-generation minority	−3.00–4.00	0.366	0.995
Signed 'contact' discrepancy	Majority	−2.33–4.00	0.385	0.973
	First-generation minority	−2.00–3.00	0.017	0.834
	Later-generation minority	−3.33–3.33	0.031	0.940

We also calculated the signed difference between these attitudes, descriptive statistics on which can be found in the last two rows of Table 5. It becomes apparent that children generally estimated the outgroup endorsement of acculturation attitudes to be similar or somewhat lower than their own, except in the case of majority children's attitudes towards minority culture maintenance.

3.3. Prediction of personal well-being from acculturation and identification scores

Acculturation attitude scales and indices of fit between ingroup and perceived outgroup attitudes were used to predict relevant outcomes of well-being. Descriptive statistics on the indices of well-being for the three sub-samples (majority, first-generation minority, later-generation minority) are given in Table 6. Unsurprisingly for this mainstream primary-school sample of children, the global self-esteem score was moderately high on average (all means just over 3.00 on a four-point scale), whilst teacher ratings of behavioural problems remained low overall (all means less than 2.00 on a three-point scale). There were no large overall differences between these groups on our measures of personal well-being.

Table 6
Descriptive statistics on well-being variables

	Cronbach's α	Group	Range	Mean	S.D.
Global self-esteem	0.628	Majority	1.17–4.00	3.290	0.570
		First-generation minority	1.50–4.00	3.231	0.627
		Later-generation minority	1.67–4.00	3.260	0.592
SDQ: hyperactivity	0.865	Majority	1.00–3.00	1.595	0.581
		First-generation minority	1.00–3.00	1.629	0.690
		Later-generation minority	1.00–3.00	1.533	0.528
SDQ: emotional symptoms	0.812	Majority	1.00–3.00	1.403	0.473
		First-generation minority	1.00–2.40	1.257	0.318
		Later-generation minority	1.00–2.80	1.270	0.380
SDQ: conduct problems	0.725	Majority	1.00–2.60	1.205	0.323
		First-generation minority	1.00–2.75	1.160	0.386
		Later-generation minority	1.00–2.40	1.141	0.279

The prediction of personal well-being variables was analysed separately for each of the three sub-samples. Analysis of variance (ANOVA) was used to determine the effects of categorical predictors (own acculturation strategy according to the fourfold dissociation, perceived outgroup acculturation strategy according to the fourfold dissociation, acculturative fit according to the IAM), whereas hierarchical regression analysis was the procedure of choice when continuous predictors were involved (own and perceived outgroup acculturation attitudes and the absolute and signed discrepancies between those). The ANOVAs were followed up with comparisons using the conservative Bonferroni t statistic to identify pairwise differences among the categories. The regression analyses had mean-centred scores on the relevant predictors entered in the first step of the analysis, and the multiplicative terms between the two linear predictors in the second. This enabled an examination of interactive effects on the outcome variables (see Aiken & West, 1991).[7]

Missing data were not a big problem in this sample: generally, less than 5% of data points per variable were missing in each sub-sample. The only exceptions were the SDQ (Goodman, 1997) outcome measures, where 12–15% of cases in each sub-sample had not had a questionnaire returned by their teaching staff, and the ethnic identification measure, which was essentially meaningless to most of the majority children. Ethnic identification was therefore ignored in analyses of the majority group, whilst cases with missing SDQ data did not feature in the analysis of SDQ outcomes. The few remaining missing values in predictor variables were addressed by list-wise deletion for the ANOVAs, and by mean substitution for the regression analyses.

3.3.1. Global self-esteem

Preliminary analyses indicated that one case among the 180 majority children was a univariate outlier at the low end of Harter's (1982) global self-esteem scale and exerted undue influence on the solution. This case was therefore excluded from the analysis. Global self-esteem was predicted by perceived outgroup acculturation attitudes among majority children ($R = 0.24$, $R^2 = 0.06$, $F(2, 176) = 5.22$, $p < 0.01$) and among first-generation minority children ($R = 0.44$, $R^2 = 0.19$, $F(2, 37) = 4.40$, $p < 0.05$). White British children scored higher on global self-esteem to the extent that they thought minority children desired inter-ethnic contact ($\beta = 0.21$, $t = 2.87$, $p < 0.01$), and marginally lower to the extent that they perceived minority children to be keen to maintain their own ethnic culture ($\beta = -0.13$, $t = -1.75$, $p < 0.09$). Both coefficients were significant among boys (contact $\beta = 0.25$, $t = 2.55$, $p < 0.05$; culture $\beta = -0.23$, $t = -2.33$, $p < 0.05$), but not among girls (contact $\beta = 0.16$, $t = 1.41$, ns; culture $\beta = -0.01$, $t = -0.06$, ns). First-generation British Asian children displayed a similar pattern: their self-esteem was marginally higher if they believed white British children favoured intergroup contact ($\beta = 0.31$, $t = 1.95$, $p < 0.06$) and significantly lower if they thought the outgroup expected them to maintain their own culture ($\beta = -0.44$, $t = -2.77$, $p < 0.01$). The latter coefficient reached significance among boys ($\beta = -0.52$, $t = -2.83$, $p < 0.05$) but not among girls ($\beta = -0.21$, $t = -0.70$, ns). By contrast, later-generation minority children reported *greater* self-esteem when they believed white British children to expect them to maintain their own heritage ($\beta = 0.17$, $t = 1.98$, $p < 0.05$), although the model was not significant overall ($R = 0.16$, $R^2 = 0.03$, $F(2, 163) = 2.22$, ns). Self-esteem was predicted among the later-generation minority children by their own acculturation attitudes ($R = 0.19$, $R^2 = 0.04$, $F(2, 163) = 3.10$, $p < 0.05$), specifically their desire to maintain ethnic heritage ($\beta = 0.17$, $t = 2.18$, $p < 0.05$). Finally, a model predicting self-esteem from absolute discrepancies in acculturation attitudes among majority participants was marginal ($R = 0.18$, $R^2 = 0.03$, $F(2, 176) = 2.86$, $p < 0.07$), with perceived discrepancies in the desire for contact the sole significant predictor ($\beta = -0.18$, $t = -2.39$, $p < 0.05$). This coefficient was significant among girls ($\beta = -0.23$, $t = -2.08$, $p < 0.05$) but not among boys ($\beta = -0.13$, $t = -1.26$, ns). Self-esteem was not predicted by the categorical predictors included in the ANOVAs.

3.3.2. Teacher ratings of emotional symptoms

Teacher-rated scores on the sub-scale of Goodman's (1997) SDQ relating to fears and emotionality were predicted among white British children by the regression model involving perceived outgroup acculturation attitudes ($R = 0.22$, $R^2 = 0.05$, $F(2, 150) = 3.88$, $p < 0.05$) as well as the model on signed acculturation discrepancy scores ($R = 0.22$, $R^2 = 0.05$, $F(2, 149) = 3.94$, $p < 0.05$). In the former model, the perceived minority desire to maintain ethnic culture was the only significant predictor ($\beta = 0.20$, $t = 2.54$, $p < 0.05$), whilst the latter identified the signed discrepancy between own and perceived outgroup attitude towards minority culture maintenance as significant ($\beta = -0.19$, $t = -2.38$, $p < 0.05$). Both findings seem to suggest that majority children were troubled by an absolutely or relatively high perceived desire among minorities to maintain their own culture.

Meanwhile, symptoms among first-generation minority children were predicted by the fourfold classification of acculturation strategies ($F(3, 30) = 4.83$, $p < 0.01$). Multiple comparisons using Bonferroni's t showed that children whose acculturative strategies had been classified as 'assimilationist' showed more emotional symptoms ($M = 1.64$) than both 'integrating' ($M = 1.17$, Bonferroni's $t = 3.46$, $p < 0.05$) and 'marginalised' children ($M = 1.07$, Bonferroni's $t = 2.87$, $p < 0.05$), with children allocated to the 'separation' stance not significantly different from any other group ($M = 1.40$).

3.3.3. Teacher ratings of hyperactivity

Scores on the teacher-rated hyperactivity scale from Goodman's (1997) Strengths and Difficulties Questionnaire were not predicted by any of the continuous or categorical predictor variables in any sub-sample.

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[7] Age was included as an additional predictor in early attempts at these analyses, alongside the relevant multiplicative terms involving age. The few interactions that were observed all followed the same pattern: relationships between variables were stronger for older children. In the interest of clarity, the analyses reported here do not include age as a predictor.

3.3.4. Teacher ratings of conduct problems

Ratings of conduct issues were marginally predicted by the regression model on signed discrepancies between own and perceived outgroup acculturation attitudes among later-generation British Asian children ($R = 0.19$, $R^2 = 0.04$, $F(2, 143) = 2.58$, $p < 0.08$). The model suggests that children exhibited more conduct problems if their desire to maintain ethnic culture was greater than the perceived desire of the majority ($\beta = 0.19$, $t = 2.27$, $p < 0.05$). This coefficient reached significance among boys ($\beta = 0.31$, $t = 2.72$, $p < 0.01$) but not among girls ($\beta = 0.04$, $t = 0.40$, ns).

4. Discussion

The first aim of the research reported here was to validate a measure of children's acculturation attitudes based on Berry's framework (e.g. Berry, 2002), and to ascertain whether the usually presumed preference for 'integration' was witnessed in our sample. We demonstrated that measurement of the 'culture maintenance' and 'contact/participation' dimensions among young children using our customised items was both practical and psychometrically sound: the eight-item instrument is appropriately brief, no significant problems were encountered in administering the scale, individual items were associated with underlying factors to the expected pattern, and summary scales were internally reliable and displayed concurrent validity.

There was a general preference for integration, in line with the assertions of Berry and colleagues (e.g. Berry, 2002), as is the unpopularity of its 'marginalised' opposite. Although none of the acculturation items was reverse-scaled, it seems unlikely to us that this preference for high culture maintenance and high inter-ethnic contact is simply an artefact of response bias: other measures in our extensive questionnaire did use reverse-scaling and suggested no such problem.

The second empirical aim of the study was to explore the relationships between acculturative attitudes and measures of well-being. If we accept that 'integration' was the preferred choice among our respondents, was it also associated with the most beneficial outcomes? Our data suggest that acculturation attitudes may have some predictive utility – a greater desire for culture maintenance was associated with higher self-esteem in later-generation minority children – but do not witness any specific benefits of an 'integration' position. The fourfold classification of acculturation strategies predicted emotional symptoms among first-generation minority children, with those of an 'assimilationist' stance rated to be more fearful by their teachers; the interaction between the two dimensions did not make a significant contribution to the prediction of any outcome measure. There is thus no evidence for an association between the 'integration' strategy and the best psychological outcomes, nor a clear picture of whether the four-way classification or the measurement of acculturative dimensions has greater predictive utility. With regard to Rudmin and Ahmadzadeh's (2001) critique, we can only conclude that support for a direct relationship between acculturation attitudes and well-being remains limited.

Our data do proffer some evidence that children respond both to perceived outgroup acculturation attitudes (for example, majority children displayed lower self-esteem and were diagnosed with more emotional symptoms by their teachers if they believed minority children were eager to maintain their own ethnic culture) and the discrepancies between those outgroup attitudes and their own views (majority children displayed more emotional symptoms to the extent that they perceived minority endorsement for culture maintenance to be greater than their own, whilst a marginal result suggested that smaller absolute discrepancies were associated with higher self-esteem in the same sub-sample). The IAM (Bourhis et al., 1997) did not predict any outcome variables – as an explicitly intergroup approach to acculturation, it may be better suited to the prediction of *intergroup* outcomes. Nevertheless, the findings obtained in our exploratory analysis underline the importance of the intergroup context and individual perceptions thereof in the acculturative process, and thereby make the case for a social-psychological angle on acculturation.

In a more general sense (and with the caveat that different results might of course be obtained in contexts that are geographically or demographically dissimilar), these findings also cast some light on majority–minority relations as experienced by young children. Not all of these insights are reassuring: first, the first-generation British Asian children unexpectedly reported lower self-esteem when they perceived high majority endorsement for minority culture maintenance, whereas the later-generation minorities displayed the opposite trend. These differences in the acculturation experiences of first- and later-generation minority children merit further examination in future research, preferably using a more balanced sample. More immediately, they suggest that a distinction between first- and later-generation immigrants may be crucial in examining their cultural attitudes and identities, and in identifying the conditions for smooth inter-cultural adjustment and inter-ethnic harmony. Second, there is a disconcerting suggestion that perceptions of minorities maintaining their own ethnic heritage may be associated with less positive outcomes for majority well-being. Admittedly, our cross-sectional analysis cannot establish the direction of causality; however, the viability of harmonious majority–minority relations must be questioned regardless if some majority children appear to find minority culture maintenance incompatible with their own welfare.

It would be premature, however, to draw a pessimistic conclusion about the feasibility of successful acculturation in children. If majority participants had found the distinctiveness of minority children troubling in itself, one would have expected to find a general preference for the 'assimilation' of minorities, a globally low endorsement of minority culture maintenance, a disinclination to inter-ethnic contact, or a combination of all these. In fact, none of these phenomena was found in our data. Over 6 in 10 of our majority participants favoured 'integration' and thereby the maintenance of ethnic heritage among minorities; majority desire for inter-ethnic contact was high, and even their mean recommendation of minority culture maintenance was well above the scale mid-point. Despite the acculturative difficulties identified in these data, both majority and minority children's attitudes were clearly multi-cultural.

5. Conclusions

The research reported here has addressed some psychometric and social-psychological issues concerning acculturation processes in primary-school children, and it is our hope that it can contribute to a solution of the applied problems it has also raised. If new immigrants are concerned primarily with being accepted into the majority society, later-generation minorities are eager to promote their own cultural identity, and members of the majority group need to be reassured that minority culture maintenance does not threaten their own welfare, it appears likely that well-intentioned but rigid and generic multi-cultural tropes must be realigned to do justice to the interests of acculturating groups. Primary schools are inter-cultural meeting grounds, and our data add to the evidence of young children's willingness to engage with, and welcome, different cultures. Our measure of children's acculturation attitudes has revealed a complex and differentiated set of relationships between acculturative stances and relevant outcome variables, which may be instructive to a more sophisticated understanding of classroom integration.

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