

Abstract

There is a substantial literature documenting preschoolers' racial awareness and affect from multiracial societies in North America and a fast-growing body of work from societies that are or were once more racially homogeneous. However, studies in Britain, a racially diverse society, on this developmental period have been curiously rare. This study examined racial awareness and affect of 125 White, Black and Asian 3-5-year-olds in London. Children were tested on cognitive level, person description and classification, race labelling and matching, self-categorisation and asked about their racial preference and rejection and inferences about their mothers' preference and rejection. Children were least likely to use race versus other categorical cues to spontaneously describe or classify others, even though the majority correctly sorted others by race labels, matched them to drawings and categorised themselves by race. With age and increasing cognitive level, children described and categorised others by race more and improved in race matching. White children from age 4 preferred White peers and inferred that their mothers would prefer White children at age 5. Children's own preference and inference about mothers are related. Children did not show race-based rejection, but boys inferred that their mothers would prefer White children and reject Black children. The findings are discussed in relation to racial salience between contexts, previous research and theories.

Keywords: young children; racial awareness; racial affect; inferences; context.

Young Children's Racial Awareness and Affect and Their Perceptions of Mothers'

Racial Affect in a Multiracial Context

There is a substantial body of research documenting young children's racial and ethnic<sup>1</sup> awareness and identification and interracial evaluations based on studies from multiracial societies in USA and Canada (Aboud, 2003; Katz & Koftin, 1997; Killen & McKnown, 2005; Kowalski, 2003; Ramsey & Myers, 1990), plus a fast-growing literature from states or contexts that are, or once were, more racially homogeneous (Anderson & Cramer, 2003, Jamaica; Duckitt, Wall, & Pokroy, 1999, South Africa; Enesco, Navarro, Paradela, & Guerrero, 2005, Spain; Kowalski & Lo, 2001, Taiwan). Meanwhile, developmental research from Britain on the same childhood period has been sparse since the 1980s (Davey, 1983; Milner, 1983; Norburn, 1983), with few notable exceptions (Rutland, Cameron, Bennett, & Ferrell, 2005). This is curious in that Britain is highly racially diverse where many inner-city and suburban areas have as many children from non-White<sup>2</sup> minority groups as, and at times more than, White majority children (Lupton & Power, 2004). Furthermore, other academic disciplines have already accumulated a good deal of observation of young children's interracial relationships in such settings (e.g., Connolly, 1995, 2001).

*Young Children's Racial Awareness and Salience*

A general consensus from the extensive history of research in this area in the US and Canada is that children notice the basic physical differences between White and Black others by the age of 3 years, before the awareness of more categories shortly after from 4-5 years (see review by Katz & Koftin, 1997). Racial self-identification soon follows; by age 5 most children can identify themselves by their race categories. It has generally been the case that children from racially diverse societies are aware of racial differences and self-identify earlier than those from less diverse societies (Katz,

1983; Ramsay, 1987). The available British research (Davey, 1983; Norburn, 1983) has largely found similar patterns, if recent work has limited investigations to White children in White-majority contexts (Rutland et al., 2005).

It is important to note the differences between awareness of racial differences and racial identification and the differences in these patterns between different groups of children. Non-White children in White-majority societies tend to be aware of racial differences earlier, or are more sensitive to such differences, than the White majority. However, in some cases such children perform worse in racial self-identification than their White counterparts (Katz & Kofkin, 1997). These findings have been explained by social-motivational factors within the society (Ruble et al., 2004). As the majority in terms of group size as well as representing the norm and the group in power, racial self-identification is seen as ‘simpler’ for White children (p. 39). With the challenges of identifying between mainstream society and their own racial group, with the lower social status, minority children may ‘misidentify’ with the majority group or perceive racial group membership as more changeable.

Indeed, past studies have shown, in both adults and children, that racial salience tend to be particularly high for those who form a distinctive minority in their social context (McGuire, McGuire, Child, & Fujioka, 1978; Powell, 1973). In general, if a group is a minority in terms of either its size or collective status, group membership will be salient to its members (Mullen, Brown, & Smith, 1992; Sachdev & Bourhis, 1987). However, research that has compared the salience of race between contexts suggests that race may be salient for (both majority and minority) children only in contexts with very few minority members (Dutton, Singer, & Devlin, 1998; Ramsay, 1991; and see Verkuyten, 2004, for a review). Still, such work has focused on older children and, as earlier studies (Clark, Hocevar, & Dembo, 1980, George & Hoppe,

1979; Zinser, Rich, & Bailey, 1981) found, the salience of race diminishes with age through middle childhood. Perhaps with their increasing exposure and experience, older children pay more attention to individual, rather than group, characteristics (Aboud, 1988, Aboud & Amato, 2001; Bennett, Dewberry, & Yeeles, 1991).

Context dependency of the salience of social group membership is one of the key premises encapsulated by Self-categorisation Theory (Oakes, Haslam, & Turner, 1994; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). It has been suggested that the prevailing social context can render a particular social group membership more or less salient to individuals. For instance, racial group membership may be less salient to a Black person who finds him or herself in a predominantly 'Black' context versus one in which Black people are in the clear minority. Thus to children within a racially diverse context, race may in fact be not that salient, compared to other attributes, for interpersonal perception (see Barrett & Davies, 2008).

As stated earlier, being the racial 'majority' is not only about numbers, but often connotations of power and access to resources, and even young minority children are aware of the lower status of their own group (Alejandro-Wright, 1985). The society in which many children live now may be multiracial, but the 'dominant' group is White, evident in its greater representation in the media and authority. The higher salience of race to minority children and their lower in-group identification can be a reflection of status recognition, with their own race being the 'other' group in society (Cameron, Alvarez, Ruble, & Fuligni, 2001). This is in line with Social Identity Theory (see Nesdale, 1999; Tajfel & Turner, 1979) where majority group members find positive intergroup comparisons easier due to their group's higher relative group status. This has found empirical support as children's degree of in-group identification varies with the relative status of the group (Nesdale, Durkin, Maass, & Griffiths, 2004, 2005).

Racial salience further varies with the context of investigation (Ramsay & Myers, 1990). Racial salience can be tested by one of several methods involving spontaneous description and categorisation of stimuli. For categorisation or sorting of stimuli from different races, when few other group attributes (such as gender) are available the use of race is frequently invoked (Davey & Norburn, 1980). When children are afforded more group or non-categorical attributes (such as facial expressions), race is seldom chosen as a basis for categorisation (Bennett et al., 1991). It is then unsurprising that in open-ended or spontaneous person description tasks, race rarely features as one of the most used descriptions by children, who can use other attributes, such as inferred or expressed affect (Dutton et al., 1998). Thus, children may well be ‘aware’ of racial differences, but whether they opt to categorise people along such differences depends on the immediate context in terms of the availability of other criteria.

#### *Young Children’s Racial Affect and Evaluations*

Not only do children use racial cues for categorising people, it is well established that they also use such cues in evaluative ways (Katz, 1982, 1983). It has been widely observed, since the earliest work (Clark & Clark, 1947; Goodman, 1952), that White children show clear biases towards White stimuli by 3 years of age, and this tendency increases until at least 7-8 years (Aboud, 1987, 1988; Doyle & Aboud, 1995, Canada; Leman & Lam, 2008; Rutland et al., 2005, Britain). Furthermore, non-White children in White-dominant societies also tend to favour White stimuli in that they prefer them more as potential friends and attribute more positive attributes to them compared with non-White stimuli (Aboud & Skerry, 1983; Annis & Corenblum, 1987; Corenblum & Wilson, 1982; Semaj, 1985). Even non-White children in states and contexts with few White people show such a pro-White bias (Bruce, Curtis, & Johnson, 1998; Anderson & Cramer, 2003) with few exceptions (Kowalski & Lo, 2001).

White children's negative attitudes towards and rejection of non-White stimuli have been reported from as early as 3 years of age (Katz & Kofkin, 1997), and that continues into middle childhood (Aboud, 1988; Doyle & Aboud, 1995). Meanwhile, non-White minority children tend to evaluate their own or other minority groups in a more neutral, and at times even negative, manner (Bennett et al., 1991; Davey, 1983). The asymmetry between White majority and minority children's patterns indicates the role of social-motivational factors also in racial affect (Barrett & Davis, 2008).

The accounts offered for racial biases in younger children have fitted better with White majority children's pattern. One dominant view, from Socio-cognitive Theory (Aboud, 1988; Aboud & Amato, 2001), has been that, as children use race to classify others, they evaluate them in a way that those seen as similar to themselves are liked or perceived as good, and those different from themselves are less liked or perceived as bad, or are even disliked or derogated. This is purportedly due to the preoperational child's focus on the self, with its perception being dominated by affective processes, owing to a fear of the unfamiliar that is identifiable by physical attributes.

The notion that what is similar to oneself is liked/good and what is different from oneself is disliked/bad is also similar to an original premise of Social Identity Theory (Tajfel & Turner, 1979), which denotes that mere categorisation is sufficient to create intergroup prejudice. Self-categorisation with one's own group (the in-group), but not with the others (the out-group), becomes an evaluative process where children favour the in-group over out-group as favourable comparisons with out-groups enhance their social identity (Oakes & Turner, 1980; Turner, 1981). More recent conceptualisation argues that prejudicial attitudes towards the racial out-group may occur later, but the young child's race awareness and identification with the in-group nevertheless set the stage for a focus on and bias for the in-group by age 4 years (Nesdale, 1999, 2004).

The foregoing fits well with White majority children's pattern in that their bias towards the in-group develops in line with their awareness of racial differences and self-categorisation along such differences. However, as many non-White children are unbiased or favour the White out-group, it can be expected that racial affect at least in part reflect social norms and status imbalances of society. This is particularly the case for those to whom race is salient (Semaj, 1985; Spencer & Markstrom-Adams, 1990).

It is also paramount to note that much of the research through preadolescence has confounded in-group favouritism with out-group derogation (see reviews by Aboud, 2003; Brewer, 1999; Cameron et al., 2001) as such work has used the forced choice (choosing one of two targets, or using liking or value-laden attributes) or difference scores (scores given to in-group subtracted by those given to an out-group) format. Recent research examining in-group and out-group attitudes in White preschoolers separately has found that the two are not equated (Kowalski, 2003), or that they are only reciprocally related in a racially homogenous setting (Aboud, 2003). Crucially, there is little evidence of out-group rejection or devaluation. This supports the idea that out-group prejudice may occur later than in-group preference (Nescale, 1999). The lesser negative out-group derogation compared with positive in-group bias also fits with the positive-negative asymmetry effect, where older children and adults are more willing to differentiate between groups on positive attributes and less reliably show intergroup discrimination on negative attributes (see Rutland et al., 2007).

It is then likely that in-group positivity and out-group derogation are two different developmental processes, where in-group positivity, possibly a consequence of social categorisation, precedes out-group derogation, which is more likely subject to social structural conditions and transitions (Cameron et al., 2001). If so, the development of racial affect should at least in part reflect social-environmental influences.

Indeed, some authors have argued that young children's racial attitudes vary with their experiences with, and expectations about, significant socialising agents, such as parents (Ramsay & Myers, 1990). However, most researchers have found little or no association between children and parents' racial attitudes (Hughes et al., 2006; Knight et al., 1993), except a recent study (Castelli, Carraro, Tomelleri, & Amari, 2007) that found that 4-7-year-old Italian children's racial attitudes correlated strongly with their mothers' perceived racial attitudes. The discrepancy in findings may be due in part to measurement issues; soliciting parents' racial affect directly is likely to elicit socially desirable answers. Indeed, White mothers' implicit racial attitudes are a significant predictor of 3-6-year-olds' racial attitudes (Castelli, Zogmaister, & Tomelleri, 2009). Taken together, it is possible that, at least for White children, early racial attitudes are socialised within the family and that children's beliefs about the significant parenting figure's racial attitudes are relevant.

There is also evidence of gender differences in young children's racial affect. In specific, at preschool ages in both majority and minority children, boys have shown more in-group bias than girls (Anderson & Cramer, 2003), and White girls are more likely than White boys to promote engagement in prosocial behaviour towards Black children (Zimmerman & Levy, 2000). These findings are in line with those from the literature on sex-typing (see Serbin, Powlishta, & Gulko, 1993), where boys tend to be more sex-typed than girls and girls generally are more likely to promote prosocial attitudes and behaviour than boys.

### *The Present Study*

In view of the dearth of research that examines young children's racial awareness and affect in Britain, this study was conducted to assess 3- to 5-year-olds in a racially diverse context to address several questions. To what extent do children in this setting



use race to describe or classify people? Are they aware of the labels that describe race groups in society? Do they have race-based peer preference or rejection as in previous studies? What do they infer to be significant adults' preference and rejection? We aim to examine these questions in relation to children's age group, race, gender and their cognitive level.

The study used tasks designed to test several measures of racial awareness (racial description and categorisation, race labelling, race matching and self-identification) and affect (own and perceived mother's racial preference and rejection) and cognitive level (object classification). Children's cognitive level was tested as there is evidence that general cognition contributes towards racial awareness and attitudes, even though the focus has been on changes in older children and much less is known about earlier childhood (see Aboud, 1988; Clark et al., 1980). In such work, Piaget's conservation tasks, racial constancy tests and attitudinal measures have been used and found a fall in racial prejudice with the achievement of conservation and racial constancy around 7 years of age over the transition to the concrete operational period.

For this study, conservation and racial constancy tasks would not be appropriate as most young pre-operational children have not acquired such skills (Aboud, 1988), and the tasks would not gauge the year-on-year changes in the earlier stages of racial awareness. Perceptual abilities, such as object classification, are more relevant to this stage of development (Gelman & Markman, 1986, 1987). Object classification is also more suitable since both object and person classifications require the child to register similarities and differences between category members among multiple dimensions (Bigler & Liben, 1993; Ramsay & Myers, 1990). Inspired by the classic procedure of Inhelder, Sinclair, and Bovet (1974), we developed a classification task for cognitive level so that younger children could deal with the demands of the procedure. Similar

tasks have been shown to be sensitive to cognitive changes in preschoolers (Bigler & Liben, 1993; Guerrero, 2006; Guerrero, Enesco, & Lam, in press; Semaj, 1981).

As with the above research, we expected that children's cognitive level tested by object classification would increase with age. As such, we expected that children's performance on race labelling (sorting by named race labels) and matching (drawing to photograph by race) and self-categorisation would improve with age and cognitive level. Although we recognised that being aware of race does not mean race is salient, as children become more aware of racial differences with age or cognitive level, race could be more frequently invoked in spontaneous description and categorisation. Still, race would be less salient than the other group attributes that were available (gender, colour of clothes). On the other hand, we performed a simple 'manipulation' so that race might become more salient (by presenting a Black target before a White target; see Method). Children who saw a Black target first might be more likely to use race to describe the White stimulus than those who saw this White target first.

We also expected that race would be more salient for non-White children despite the diverse context (no numerical majority), due to the status discrepancies apparent in the wider society between Whites and non-Whites, thus they would use race more in the spontaneous tasks. However, they might perform worse than White children in self-categorisation as in previous research reflecting their racial status recognition.

The current study also elicited children's preference for and rejection of different racial targets and their inferences of their mothers' affect towards such targets. Based on the White-dominant societal context, it was predicted that children would display a White preference and infer the same about their mothers, and that such patterns would be more evident in White children and would increase with age. We did not make any prediction for race-based rejection or relationship between preference and rejection,

but predicted that at least White children's racial affect would be related to what they inferred about their mothers based on recent research. Finally, gender differences in racial preference were expected. Boys, particularly White boys, would show greater White preference and be more likely to infer that their mothers would hold the same preference (since their own and inferred mothers' preferences should be related).

## Method

### *Participants*

Participants were 125 children from the three main British racial groups (White, Black and Asian<sup>2</sup>), each making up about 30% of the four participating state schools' population in suburban London. Children's ages ranged from 3 to 5 years: 35 aged 3 (17 girls, 18 boys; 13 White, 11 Black, 11 Asian; *M* age = 46 months), 45 aged 4 (20 girls, 25 boys; 15 White, 16 Black, 14 Asian; *M* age = 57 months) and 45 aged 5 (24 girls, 21 boys; 18 White, 14 Black, 13 Asian; *M* age = 65 months). They lived within primarily lower-middle to middle-class (mid-SES) families. Parents' permission was obtained for the children to participate in the research.

### *Materials*

A semi-structured interview with several tasks was administered to assess the child's cognitive level, racial awareness and affect. For this purpose, two kinds of material were used, namely social and geometric stimuli.

As social stimuli, eight (10 × 8 cm) photographs of children of both sexes (4 boys and 4 girls), two colours of clothing (4 in blue and 4 in orange), and three racial (3 Black, 3 White, and 2 Asian) groups were used (see diagram 1 for examples). The photographs used were Black boy in blue, Asian boy in orange, White boy in orange, White boy in blue, White girl in orange, Black girl in blue, Black girl in orange, and Asian girl in blue.

Another set of social stimuli were two drawings (see diagram 1), one of a Black boy in orange and the other a White girl in blue, for the race matching (drawing to photograph) task (see procedure below).

The geometric stimuli (see diagram 2) consisted of eight figures varying in colour (4 black, 4 white), shape (4 circles, 4 squares) and pattern (4 with dots, 4 with lines).

### *Procedure*

A female mixed-race (White-Asian) experimenter tested the children individually for 20 to 30 minutes in a quiet room of the school. The interviews were audio-taped for transcription. The tasks were conducted in the following order.

*Spontaneous person description.* To explore whether children spontaneously used racial cues to describe others, they were asked to look at three photographs one by one and say what they saw in each: “What do you see here? What is this child like?” For half of the sample, the order of presentation was White boy in blue, Black girl in blue and Asian boy in orange. For the others, the order was Black girl in blue, White boy in blue and Asian boy in orange. The responses were sorted into four categories: gender, colour of clothing, race, other (e.g., facial expressions, inferred affect).

*Cognitive level, by object classification.* This series of classifications was based on the classic task developed by Inhelder et al. (1974). First, children were asked to organise the geometric material in two boxes following the instruction “Put the ones that go together in one box...”. Then, the figures were mixed together and the child was asked to perform another sorting, but following a different criterion (“I want you to make two groups again, but different from before...put the ones that go together, but now in a different way...”). Children’s responses were categorised and scored on each of the three levels: level 0 (no logical sorting), level 1 (one logical sorting), and level 2 (two logical sortings—with different criteria).

*Person classification.* The salience of racial cues was assessed by using the eight photographs. The photographs were randomly spread in front of the child, who was asked to “put together the ones that go together.” All responses were coded into four exclusive categories: gender, colour of clothes, race or mixed criteria (i.e., making four different groups by combining gender and colour of clothing).

*Race labelling.* The same material presented in the previous task was used to evaluate children’s knowledge of societal labels commonly used to name the target groups (‘Black’, ‘White’ and ‘Asian’). The eight photographs were again randomly spread in front of the child, this time also with three boxes. The instruction explicitly mentioned the labels: “Put the White children in this box...the Black children in this box...and now the Asian children in that one.” For purposes of analysis, children’s classifications were categorised as ‘correct’ or ‘incorrect’ responses.

*Race matching, by drawing to photograph.* This task tested children’s use of race for matching between photographic and pictorial stimuli. Four photographs, White girl in orange, White boy in orange, Black girl in blue, Black boy in blue, and two coloured drawings, Black boy in orange and a White girl in blue, were used. Children were told that “an artist made a drawing of one the four children in the photographs”, and asked to pick the child that was drawn. To achieve the correct match (White girl in orange, Black boy in blue), the child had to focus on the race (and gender) of both targets while ignoring the peripheral characteristic (colour of clothes).

*Preference and rejection.* These two measures of racial affect assessed the child’s preference for and rejection of the targets. Once again, all the eight photographs were spread on the table and the child had to choose one of the targets. The instruction for children’s own preference was: “Which child would you most like to sit next to in the classroom?”, and that for the rejection task was: “Which one would you *not* like to sit

next to you in the classroom?” Two further questions measured inferences about the racial preference and rejection of the child’s mother: “Which one would your mother like to invite to your birthday party?” “Which would your mother *not* like to invite to your birthday party?” For each of the questions, the child’s choice was categorised as White, Black, and Asian.

*Self-categorisation.* From the set of eight photographs, the children were asked to select one target with the instruction: “Which one looks most like you?” The child’s response was coded in one of two categories: ‘correct’ identification both by race and gender and ‘incorrect’ identification by race or gender.

## Results

### *Cognitive Level*

From the object classification task, nine children (7%; seven 3-year-olds, one 4-year-old and one 5-year-old) could not sort the figures logically at all (coded level 0), 79 (63%) sorted logically only in the first trial (level 1), and 37 (30%) sorted logically using different criteria across the two trials (level 2). Cognitive level was associated with age,  $r(125) = 3.81, p < .001$ . Proportionately more of the 5-year-olds achieved level 2 (47%) than 4- (26%;  $p < .05$ ) and 3-year-olds (16%;  $p < .01$ ).

### *Spontaneous Person Description*

Considering all descriptions that were given by each child, the category that most children used was gender (94%), followed by other characteristics (75%), colour of clothes (63%), then race (35%). The mention of race was associated with age,  $\chi^2 (df = 2, N = 125) = 24.99, p < .001$ , and cognitive level,  $\chi^2 (df = 2, N = 125) = 8.10, p < .05$ . As shown in Table 1, 3-year-old and level 1 children did not use any race description. The use of race was not associated with the gender or race of child participants.

As descriptions by race were rare, we computed the average number of times race was used to describe each target and compared between targets. Race was used most for the Black target ( $M = .28, SD = .43$ ), followed by the White ( $M = .24, SD = .45$ ) and Asian ( $M = .18, SD = .38$ ) targets. The use of race did not differ between targets. However, the order of presentation influenced how often race was used in describing the White target,  $t(123) = 3.75, p < .001$ . Children were more likely to describe him using relevant terms (e.g., “White”, “English”) when his photograph was presented after that of the Black target ( $M = .38, SD = .48$ ) than when it was presented before the Black target ( $M = .10, SD = .31$ ). Separate analysis by age found that this trend was significant for only 5- ( $p < .01$ ) and 4- ( $p < .05$ ) year-olds.

Insert Table 1 about here.

#### *Person Classification*

Over 86 per cent of children managed at least one logical sorting of the stimuli. Most sorted the targets by the colour of clothes (53%), followed by gender (22%). Race was the least common criterion, used only by 11 (9%) children, all 5-year-olds (see Table 1). Sorting by race was also associated cognitive level,  $\chi^2 (df = 2, N = 125) = 15.85, p < .001$ ; level 2 children used race more than level 0 ( $p < .001$ ) and level 1 children ( $p < .001$ ). Sorting by race was not related to children’s gender or race.

#### *Race Labelling*

For sorting targets by named race labels (‘White’, ‘Black’ and ‘Asian’), 60% of children managed to do this correctly. Performance was not related to age, cognitive level or gender, but to children’s own race,  $\chi^2 (df = 2, N = 125) = 22.69, p < .001$ . Black children (88% correct) performed this task better than White (63%;  $p < .05$ ) and Asian (26%;  $p < .01$ ) children.

#### *Drawing-to-photograph Race Matching*

The majority of children performed this task correctly for both White (72%) and Black (78%) targets. The performance was associated with age [White:  $\chi^2$  ( $df = 2, N = 125$ ) = 9.21,  $p < .05$ ; Black:  $\chi^2$  ( $df = 2, N = 125$ ) = 8.04,  $p < .05$ ]. For both targets, the 5-year-olds performed better than the 3- ( $ps < .01$ ) and 4- (White,  $p < .01$ ; Black,  $p < .05$ ) year-olds. The performance was also associated with cognitive level [White:  $\chi^2$  ( $df = 2, N = 125$ ) = 19.78,  $p < .001$ ; Black:  $\chi^2$  ( $df = 2, N = 125$ ) = 15.70,  $p < .001$ ]. As shown in Table 1, all level 2 children performed correctly for both targets which was also better than level 0 (White,  $p < .001$ ; Black,  $p < .001$ ) and level 1 (White,  $p < .01$ ; Black,  $p < .01$ ) children. Performance was not related to children's gender or race.

### *Self-categorisation*

When children were asked to pick a target that 'looked most like them', the vast majority, over 90%, chose one of their own race (see Table 1). Performance was not associated with age, cognitive level, race or gender of children.

### *Children's Preferences and Rejections*

When children were asked with whom they would most like to sit in class, more preferred the White targets (66%) than the Black (22%;  $p < .001$ ) and Asian (12%;  $p < .001$ ) targets, and such differences were significant,  $\chi^2$  ( $df = 2, N = 125$ ) = 60.59,  $p < .001$ . There was an association between White preference and age [ $\chi^2$  ( $df = 2, N = 45$ ) = 8.52,  $p < .01$ ]. Figure 1 shows that the 3-year-olds' choices were evenly spread between the target races, but most of the 4- and 5-year-olds preferred a White target. Separate analyses for each age group found that White preference was significant at ages 4 [ $\chi^2$  ( $df = 2, N = 45$ ) = 11.14,  $p < .001$ ] and 5 [ $\chi^2$  ( $df = 2, N = 45$ ) = 32.93,  $p < .001$ ]. Both 4- and 5-year-olds showed greater White preference than 3-year-olds ( $ps < .01$ ). No associations between racial preference and cognitive level were found.



There was an association between White preference and children's own race,  $\chi^2$  ( $df = 2, N = 45$ ) = 12.28,  $p < .005$ . White children (85%) were more likely than Black (52%;  $p < .001$ ) and Asian (58%;  $p < .01$ ) children to prefer a White target. Separate analyses by age showed that this trend was only significant for White children at ages 4 (89% preferred White;  $p < .05$ ) and 5 (100% preferred White;  $p < .001$ ), and not for those at 3 years old (62% preferred White).

When children were asked whom they would most *not* like to sit next to in class, more children chose a Black (38%) than an Asian (32%) or White (30%) target, but differences between these figures were not significant, both across the sample and for each age group. There were no associations between rejection and age or cognitive level, or between children's own preference and rejection.

Insert Figure 1 about here.

#### *Inferred Mother's Preferences*

When children were asked whom their mothers would most like to invite to their home, more inferred that the mothers would prefer a White (46%) target rather than a Black (36%;  $p < .05$ ) or Asian (19%;  $p < .01$ ) target. The differences were significant,  $\chi^2$  ( $df = 2, N = 125$ ) = 13.38,  $p < .01$ . Mothers' preference was associated with age,  $\chi^2$  ( $df = 2, N = 125$ ) = 7.93,  $p < .05$ . In Figure 2, the 3-year-olds' inferred choices of their mothers' race preference were close. At 4 years old, inferred mothers' preferences for White and Black targets were slightly greater than that for Asian targets. Most 5-year-olds inferred that their mothers would prefer a White target. Separate analysis by each age group found that such differences were significant only for the 5-year-olds,  $\chi^2$  ( $df = 2, N = 45$ ) = 20.93,  $p < .001$ ; they were more likely to infer that their mothers would prefer a White target more than a Black ( $p < .05$ ) or Asian ( $p < .001$ ) target. Inference about mothers' White race preference was not associated with cognitive level.

Insert Figure 2 about here.

An association between mothers' inferred preference and children's own race was found,  $\chi^2 (df = 4, N = 125) = 28.20, p < .001$ . Separate analysis for each race group of children showed that differences in inferred preference for the target race groups were significant only for White children,  $\chi^2 (df = 2, N = 46) = 30.44, p < .001$ , who inferred that their mothers would prefer a White target (67%) over a Black (24%;  $p < .01$ ) or Asian (9%;  $p < .001$ ) target. Examinations of data revealed that all White 5-year-olds inferred that their mothers would prefer a White target. Further analyses for each age group of White children found that White preferences inferred for mothers were not significant at ages 3- (38%) and 4- (53%).

An association between inferred mothers' preferences and children's gender was found,  $\chi^2 (df = 2, N = 125) = 12.43, p < .01$ . Figure 3 shows that more boys inferred that their mothers would prefer a White target, but girls' inferences about mothers' preference were more evenly spread across the target race groups. Separate analyses by gender showed that differences in inferred preference by boys, but not girls, were significant,  $\chi^2 (df = 2, N = 64) = 16.88, p < .01$ ; more boys inferred that their mothers would prefer a White target over a Black ( $p < .01$ ) or Asian ( $p < .001$ ) target. Further analyses by age for boys found that inferred White preference was significant only at age 5 (86%;  $p < .001$ ).

#### *Inferred Mothers' Rejections*

When children were asked whom their mothers would most *not* like to visit their homes, most inferred that their mothers would reject a Black target (56%), then White (27%) and Asian (17%) targets. These differences were significant for the sample,  $\chi^2 (df = 2, N = 123) = 29.43, p < .001$ , and all age groups (3- and 4-year-olds,  $ps < .01$ ; 5-year-olds,  $p < .05$ ). Mothers' inferred rejection was not related to cognitive level.

An association between inferred mothers' rejection and children's gender was found,  $\chi^2 (df = 2, N = 123) = 26.03, p < .001$ . Figure 3 shows that boys were highly likely to infer that their mothers would reject a Black target, but girls were about as likely to infer that their mothers would reject a White target as they would a Black target. Separate analysis by gender found that differences between inferred mothers' rejection of target races were significant for boys only,  $\chi^2 (df = 2, N = 64) = 42.23, p < .001$ . They were more likely to infer that their mothers would reject a Black target than they would a White ( $p < .001$ ) or Asian ( $p < .001$ ) target, and this pattern was significant for boys of all age groups ( $ps < .01$ ).

Insert Figure 3 about here.

Additionally, children's inferences for their mothers' preference were associated with their inferences for their mothers' rejection,  $\chi^2 (df = 2, N = 123) = 13.27, p < .01$ . Children who inferred that their mothers would prefer a White target were less likely to infer that their mothers would reject a White target (12%), compared with children who inferred that their mothers would prefer a Black (39%;  $p < .05$ ) or Asian (41%;  $p < .05$ ) target. The children who inferred that their mothers would prefer a White target were further more likely to infer that their mothers would reject a Black target (72%), compared with those who inferred that their mothers would prefer a Black (43%;  $p < .01$ ) or Asian (41%;  $p < .01$ ) target.

#### *Children's and Mothers' Preferences and Rejections*

Finally, we assessed the relationship between children's own preference and what they inferred about their mothers and the relationship between their own rejection and what they inferred about their mothers. The association between own preferences and inferred preferences was significant,  $\chi^2 (df = 2, N = 123) = 13.27, p < .01$ . In Figure 4, children who preferred a White or Black target were likely to infer that their mothers

would prefer a target of the same race, and those who preferred an Asian target were more likely to infer the same for their mothers. Separate analyses by children's own racial preference revealed that the differences were significant only for children who preferred a White [ $\chi^2 (df = 2, N = 82) = 36.32, p < .001$ ] or Black [ $\chi^2 (df = 2, N = 28) = 19.14, p < .001$ ] target. Children who preferred a White target were more likely to infer that their mothers would prefer a White target over a Black ( $p < .01$ ) or Asian ( $p < .01$ ) target, and children who preferred a Black target were more likely to infer that their mothers would prefer a Black target over a White ( $p < .01$ ) or Asian ( $p < .05$ ) target. Children's own rejection was not related to their mothers' inferred rejection.

Insert Figure 4 about here.

## Discussion

In response to the scarcity of developmental research on young children's racial cognition in Britain, the present study was designed to assess racial awareness and affect of 3-5-year-olds in a multiracial context. Our findings indicate that cognitive advances and social contextual factors both have a part to play in young children's racial awareness. Social contextual factors are even more pertinent for racial affect; children's preference is not related to cognitive level, but a combination of their own race and gender and what they inferred about their mothers' racial affect.

### *Racial Awareness and Salience*

We expected that with age and increasing cognitive level, children would perform better in race labelling, matching and self-categorisation. This holds for matching as achievement of the highest cognitive level seemed to particularly help performance. Perhaps this is due to the nature of the tasks where children needed to match stimuli by race and gender (while ignoring colour of clothes), requiring attention to multiple dimensions, a key milestone in cognitive development (Bigler & Liben, 1993).

Performance on race labelling was not related to children's age or cognitive level. This might be due to the verbal demands of the task where children needed to sort the stimuli by named race labels. That is, some children may be aware of the differences between targets, but are not knowledgeable of their societal labels. Closer inspection of the data supports this as most errors occurred in placing the Asian targets. Because typically young children first distinguish between White and Black individuals (Katz & Kofkin, 1997), it is possible that they also acquire the groups' verbal labels earlier.

In contrast, the lack of verbal demands (for race labels) may explain the stronger performance on self-categorisation. Children were required to pick a target that 'looks most like them' which pertains to a perceptual task. This may explain why there were no differences in performance between children of different race groups as predicted. Indeed, non-White children that self-labelled inaccurately in previous research did as well as White children on sorting without race labels (Ruble et al., 2004).

Although there were no differences by children's race in the use of racial cues in person description and classification as predicted, Black children performed better in race labelling than White and Asian children, who performed the worst. That one of the racial minority groups performed well and the other performed poorly is curious. One reason may be that the term 'Asian' is not as widely used by children as the term 'Black'. Asian children often refer to themselves by their ethnic origins (e.g., Indian, Bengali) which may explain their performance on this task. (The reason for using the 'Asian' label was that the sub-sample contained a mixture of ethnic subgroups<sup>2</sup>, but the relatively small and unequal sized of subgroups did not enable separate analyses by subgroup.) This limitation may be partially remedied in future work by adopting the term used by each ethnic subgroup to test race labelling in Asian children more comprehensively and accurately.

The better performance in race labelling by Black children may be explainable by social factors. Increased representation and empowerment of Black people in politics and the media since two earlier (Milner, 1983; Semaj, 1985) means that the group has enjoyed more prominence in society and a stronger group identity. However, children in this group are still often perceived as being educationally disadvantaged (Connolly, 1995, 1999). It may be argued that being Black is salient within this context (school), but whether this actually translates into stronger racial self-identification remains to be ascertained in further research.

As predicted, race was increasingly used for person description and categorisation with age and cognitive level. It is particularly notable that the youngest children (age 3 years) or those at the lowest cognitive level (0) did not use race in either task. Even the 4-year-olds and level 1 children were only slightly more likely to use race. It can be that it is not until children are older and cognitively more advanced that they start using racial cues, among other categorical attributes, as indicated by the results from race matching. It may also be that younger children do have some awareness of race, but its salience (for spontaneous tasks) increases with age and cognitive level.

Indeed, it is important to note that, as we predicted, in general children were less likely to use race, compared with other categorical or even non-categorical attributes, in the spontaneous tasks. This is despite the fact that most were able to self-categorise by race and a good majority could match stimuli by race. Then many children that are aware of racial differences do not use race as the criterion to describe and sort targets. This is in line with research that offers other available categorical attributes (Bennett et al., 1991; Dutton et al., 1998), and supports the idea of Self-categorisation Theory that certain group memberships may be not that salient in a diverse context without a clear majority/minority (Barrett & Davis, 2008; Oakes et al., 1994).

There is further evidence for the importance of context in racial salience from the person description task. When the Black target was presented before the White target, children used more racial terms to describe the White target than when this target was presented first. That is, race became more salient for perceiving a White child whose racial group membership was not as salient unless a Black child was first seen in the experiment. This is despite the racially diverse school setting with similar numbers of White and Black children and highlights that the salience of a racial ‘minority’ group is due less to its numerical size than its status in society (Alejandro-Wright, 1985).

#### *Racial Preference and Rejection*

As we predicted, children showed a White peer preference. At the same time, this preference is reliably shown only in White children, from age 4. This in-group bias by the dominant racial group supports the premises of Socio-cognitive Theory (Aboud, 1988; Aboud & Amato, 2001), where for the pre-operational child, others that are physically similar (same race) to oneself are liked. The developmental pattern is in line with that found in previous studies with White children (Aboud, 1988; Katz & Kofkin, 1997). Racial bias is often inconsistent at 3 years of age, as shown in some research and observations (Aboud, 2003; Ramsay, 1987). Importantly, as in earlier studies (Bennett et al., 1991; Davey, 1983), Black and Asian children did not show a reliable racial preference. As race was no more salient to them than to White children in the racial awareness tasks, this lack of bias may be due in part to minority children having more neutral evaluations of different race groups.

Children did not differ in their likelihood to reject White, Black and Asian targets, and their preference and rejection patterns were unrelated. These results are consistent with those in recent studies that examined in-group and out-group attitudes separately (Aboud, 2003; Kowalski, 2003). Together, they lend support to the conceptualisation

that in-group positivity pertains to a more primary process that is separate from, and likely precedes, that of out-group negativity, which exhibits itself later in childhood and relies on social-environmental factors more than cognitive development (Brewer, 1999; Cameron et al., 2001).

That White children held a White preference from age 4 years, but no out-group rejection through to 5 years, also supports the recent variant of Social Identity Theory (Nescale, 1999, 2004). Children's race awareness and identification with the in-group first lead to a focus on, and bias towards, the in-group by age 4. However, prejudicial attitudes towards out-groups may occur much later and are subject to social variables (such as norms within the in-group and perceived threat to the in-group).

In-group bias and lack of out-group rejection in White children also fits with the positive-negative asymmetry effect found in older children and adults, who are more willing to differentiate between groups on positive attributes and less reliably display intergroup discrimination on negative attributes (Rutland et al., 2007). This is argued as a phenomenon of the social constraints against displaying discrimination involving negative outcomes and is dependent upon children being aware of the norm regarding the social acceptability of such discrimination. If so, the lack of out-group rejection in White children indicates that from age 3 they are already aware of the unacceptability of negative discrimination. However, a recent study (Rutland et al., 2005) found that White 3-5-year-olds did not show positive-negative asymmetry as they differentiated between the in- and out-groups on both positive and negative traits. The discrepancy in results may be due to the different measures used (rejecting an out-group peer may be even more undesirable than attributing negative traits to the peer) or to the racially diverse school context (awareness of, and respect for, diversity are often promoted in such educational settings; Connelly & Hosken, 2006).



With regards to inferences about mothers' racial affect we found that, as expected, children most likely inferred that their mothers would prefer a White child. However, only White children reliably displayed this pattern, particularly at age 5. Furthermore, children's preference was related to what they inferred about their mothers. This set of findings is consistent with those in a recent study of White Italian children where perceived mothers' racial attitudes correlated with children's own attitudes (Castelli et al., 2007). Even though no causal inference can be made, these findings show that what young children perceive to be the racial bias of the key parent figure is relevant to their own racial bias, implying the role of the family environment in the formation and development of racial attitudes in early childhood (Castelli et al., 2009).

It is intriguing that only 5-year-old White children, not younger children, inferred a White bias about their mothers. Caution is needed to not over-extrapolate from this result, as the relevant sub-sample is small. However, it is noteworthy that all of these 5-year-old White children made this inference. This inferred White bias lags behind children's own bias at age 4. It may be that, with age, children increasingly recognise their parents' racial attitudes, and the time lag from displaying own bias to inferring about mothers might reflect the developing perspective-taking skills in this age range (Selman, 1971; Selman & Byrne, 1974). Alternatively, own and inferred biases about others might follow distinct developmental pathways. Future work should incorporate perspective-taking skills to ascertain its role in perceptions about others' racial bias.

Whilst gender differences in children's own racial bias were not found, boys were more likely than girls to infer that their mothers would have a White preference at age 5 (although, again, the sub-sample of boys is limited). As discussed above, this might be because of the later ages at which children recognise their parents' racial attitudes. However, boys at all ages inferred that their mothers would reject a Black child. Such

gender differences in inferred racial bias alone are interesting, because boys and girls did not differ in their own racial affect, but perceived their mothers' affect differently. Research in other areas such as stereotyping has found that boys produce more sex- (Serbin et al., 1993) and race-typed (Lam & Leman, 2003) attributions about others. Perhaps a similar pattern is borne out here by boys attributing stronger race-based evaluations to a significant adult. More research is needed to clarify the relationship between gender differences in attributions of stereotypes and those in attributions of racial evaluations in young children.

Finally, we discovered that mothers' racial preference was related to their racial rejection inferred by children. As no relationship between children's own preference and rejection was found, this result implies that, unlike making their own evaluations of others, children's inferences about their parents' evaluations might follow a more 'logical' pattern based on group membership; what 'kind' of people mother likes, she is unlikely to dislike. Meanwhile, it should be cautioned that, as in previous research (Castelli et al., 2007), after assessing children's own racial preference and rejection, similar items to those eliciting children's own choices were given to assess mothers' inferred preference and rejection<sup>3</sup>. Children might have found it easier to infer their mothers' racial affect (thus seemed more 'logical' in their responses). However, it is unlikely that mothers' inferred racial affect was purely a consequence of children's false consensus bias as children's own pattern of racial affect differed a great deal from that of their inferences about their mothers. They were not simply 'projecting' their own racial affect onto their mothers, if they might have selectively based some of their beliefs (preference) about their mothers on their own affect. In view of this methodological limitation, future research using more varied methods for eliciting children's own and their inferences about others' racial affect is required.

What can we conclude about young children's racial awareness and affect in this highly racially diverse context? At least, most children are aware of racial differences and what is their own race group, but race is not salient for describing and classifying people in this context compared with racially homogeneous contexts (Duckitt et al., 1999; Guerrero, 2006; Guerrero, Enesco, & Lam, in press; Ramsay, 1991). Obviously without the benefit of a control group in a homogeneous context, comparisons can be made only in an ad hoc fashion. Nevertheless, at least White children's racial affect is comparable to that in other contexts (Aboud, 1988; Katz & Kofkin, 1997). Finally, it is clear that by the first year of school, social contextual factors already play a role in evaluations of others based on race. In particular, the findings from this study add to the emerging evidence (Castelli et al., 2007, 2009) that, even though their intergroup perceptions may be constrained by cognitive abilities, children's early racial attitudes may be developed within the family. Factors such as children's perception of parents' racial attitudes might influence the content of their personal attitudes. Future research should investigate closely the ways in which such factors influence racial salience and intergroup evaluations.

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Tables

Table 1. Proportions of children who used race or performed correctly in race awareness tasks by age and cognitive level.

		Number (per cent in bracket) of children					
		Used race in description	Used race in classification	Correct in race labelling	Correct in Race matching		Correct in self-categorisation
					White target	Black target	
Age	3 years (N=35)	0 (0%)	0 (0%)	18 (51%)	22 (63%)	23 (66%)	31 (89%)
	4 years (N=45)	20 (44%)	0 (0%)	24 (53%)	29 (64%)	33 (74%)	40 (89%)
	5 years (N=45)	24 (53%)	11 (24%)	33 (73%)	40 (88%)	41 (91%)	43 (96%)
Cognitive level	Level 0 (N=9)	0 (0%)	0 (0%)	5 (56%)	5 (56%)	6 (67%)	8 (88%)
	Level 1 (N=79)	20 (25%)	2 (3%)	46 (58%)	49 (62%)	54 (68%)	69 (87%)
	Level 2 (N=37)	24 (65%)	9 (24%)	24 (65%)	37 (100%)	37 (100%)	37 (100%)
	Sample (N=125)	44 (35%)	11 (9%)	75 (60%)	91 (73%)	97 (78%)	114 (91%)

Figures

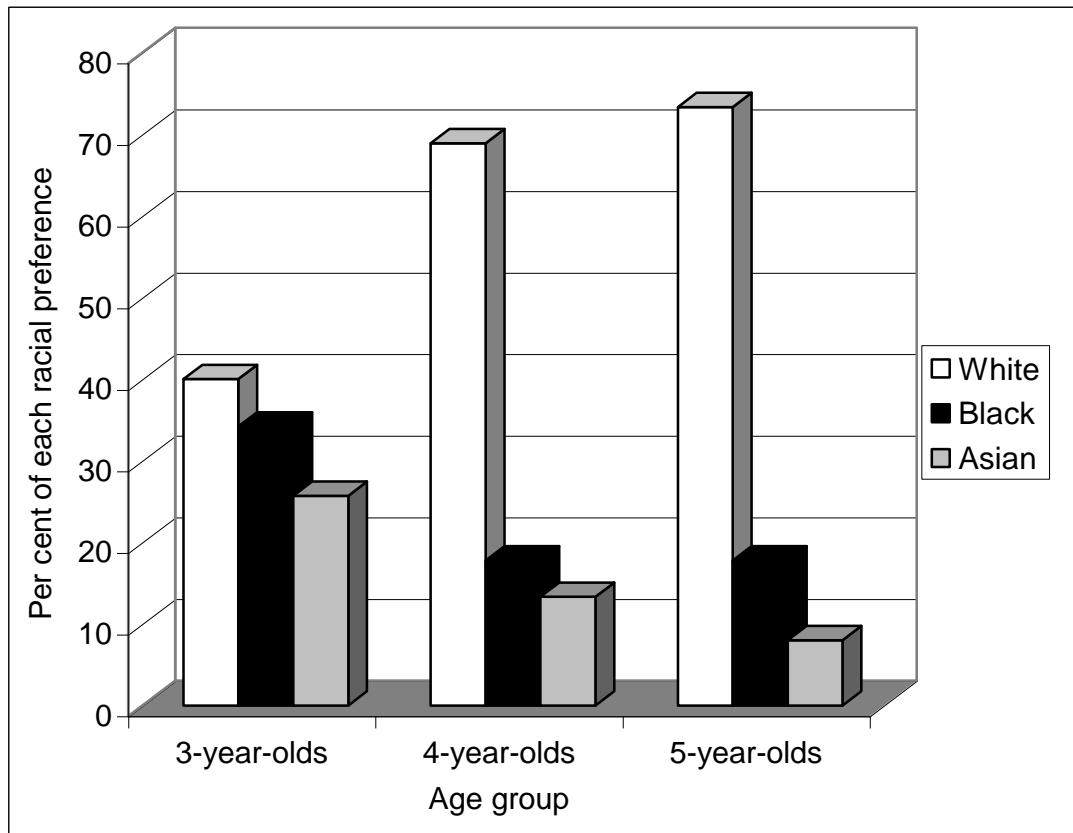


Figure 1. Percentages of children who preferred white, black and Asian targets by age.

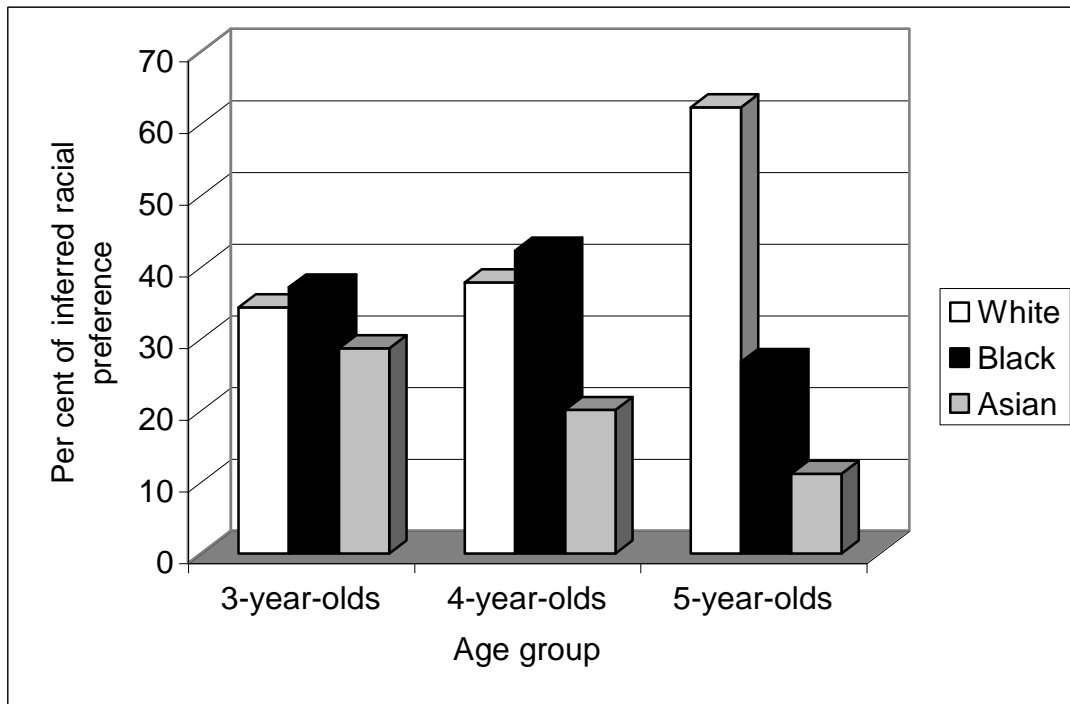


Figure 2. Percentages of children who inferred that their mothers would prefer white, black and Asian targets by age.

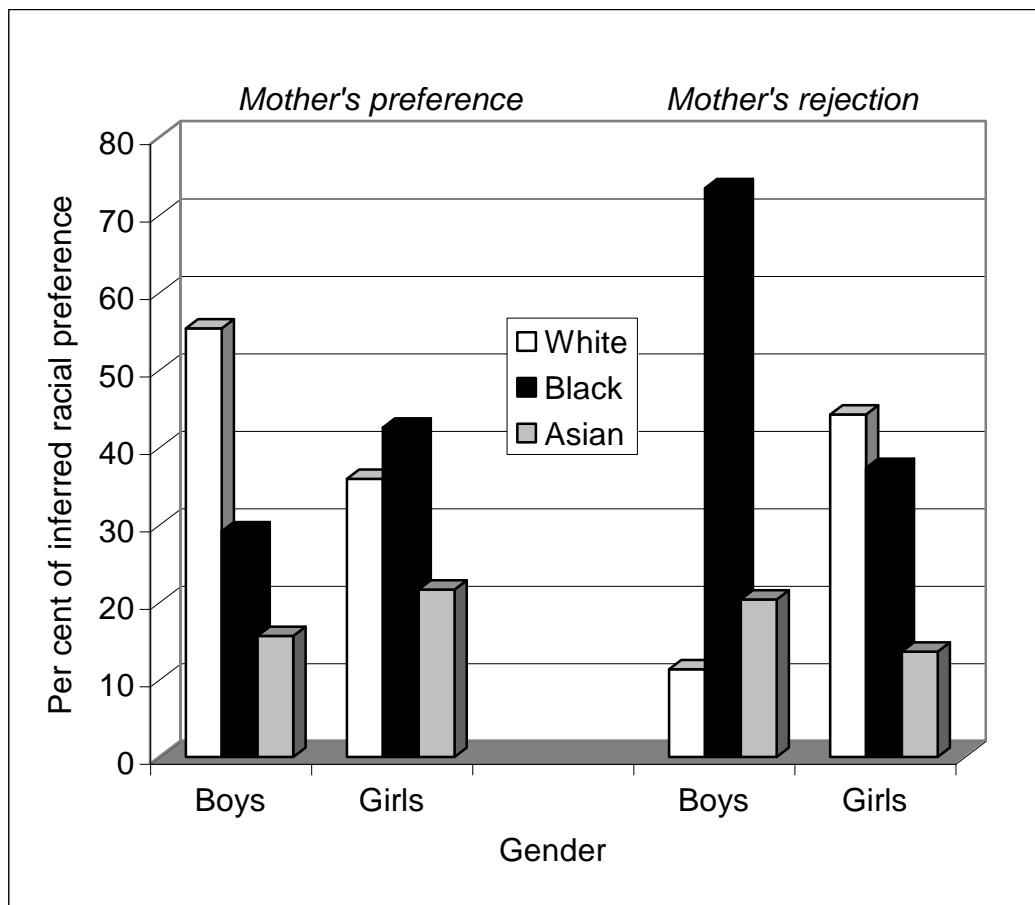


Figure 3. Percentages of boys and girls who inferred their mothers would prefer or reject white, black and Asian targets.



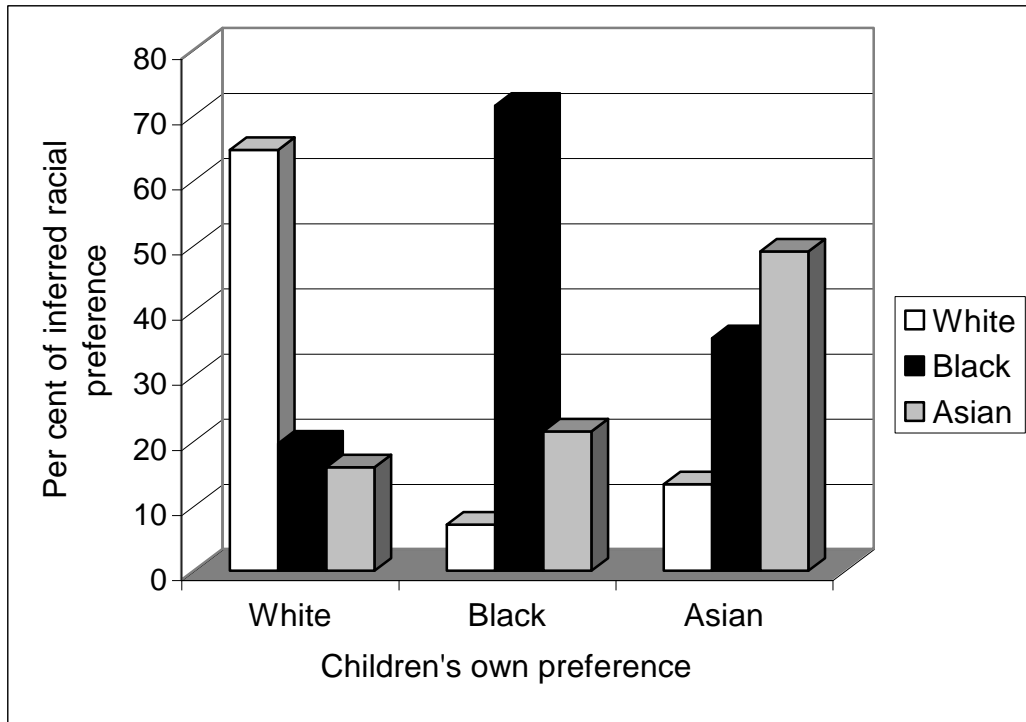


Figure 4. Children's inferences about their mothers' racial preference by children's own racial preference.

Illustrations

Diagram 1. Social material: examples of children's photographs (Black boy in blue, White boy in orange, Black girl in blue, White girl in orange) and drawings of Black boy in orange and White girl in blue. Children had to match each drawing to a correct target in a photograph by the target's race and gender (correct targets highlighted).

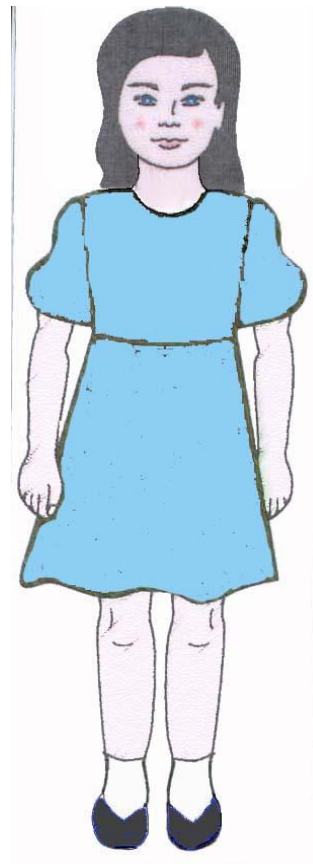
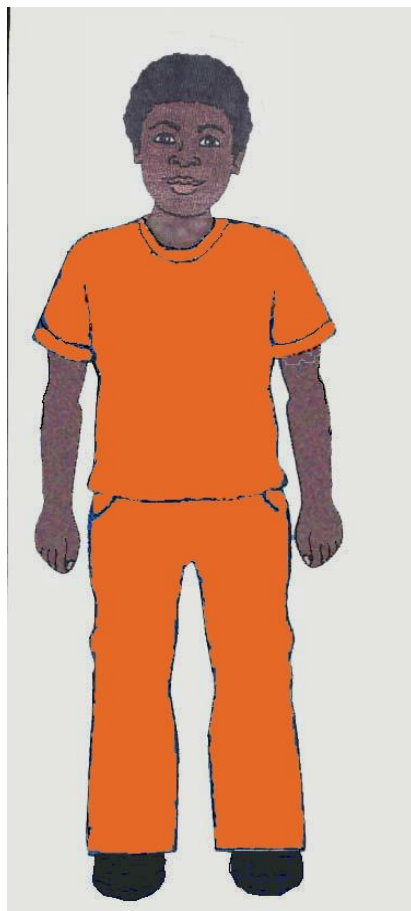
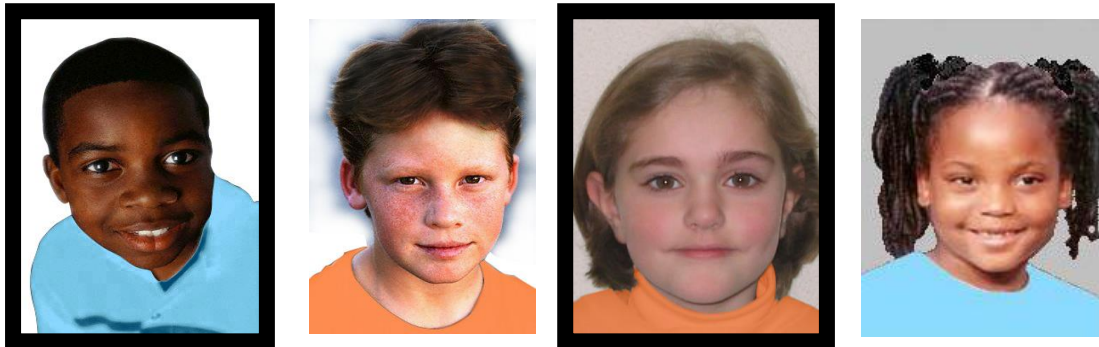
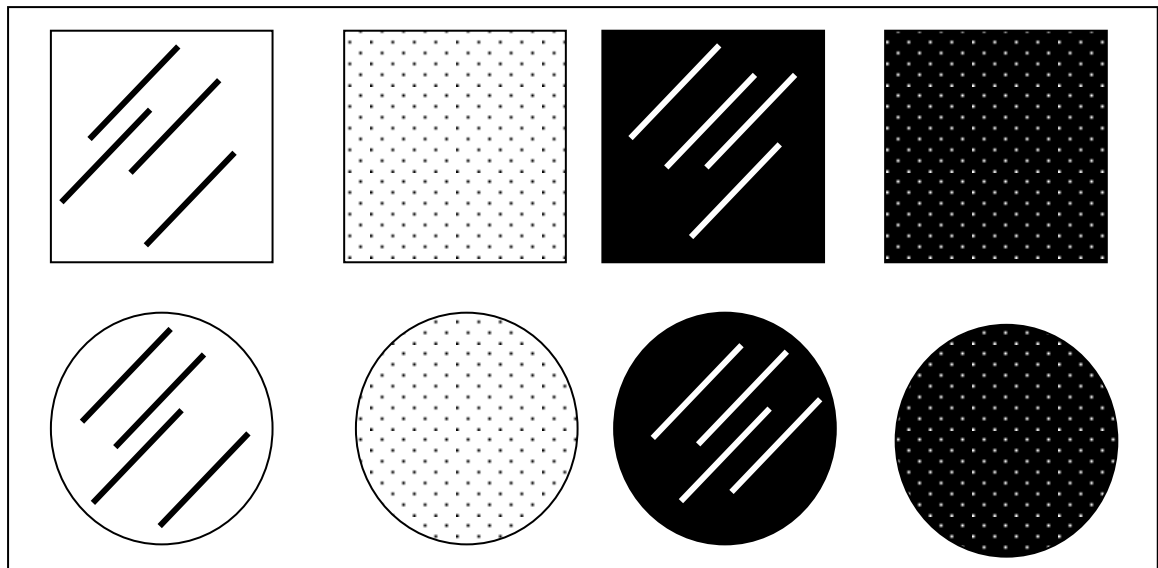


Diagram 2. Geometric material: eight targets varying in colour, shape and pattern.



Footnotes

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<sup>1</sup> In this paper we endeavour to avoid confusion between the terms *race* and *ethnicity*. By race, we refer to the physical external attributes that are often, though not always, related to an individual's ethnic group, such as skin color, shape of the eyes, texture of the hair and so on, whereas ethnicity refers to cultural aspects that go beyond the exclusively physical ones (Quintana & McKown, 2008). For this study, we chose to use race, as the ages of the children studied and the nature of our experiment meant that children would largely focus on the physical attributes of stimuli.

<sup>2</sup> In Great Britain, the two largest non-White racial minority groups are 'Blacks' and 'Asians' according to the latest nationwide census (the Office for National Statistics, 2001). In the British context, Black people refer to individuals who trace their family ancestry to Africa or the Caribbean (in particular the former British colonies such as Jamaica). Asian people refer to individuals who can trace their family ancestry to the Indian subcontinent, most notably the former colonies in where is now India, Pakistan and Bangladeshi. Despite various subgroup differences (such as older Indian children having academic attainments on par with the White majority), racial minority groups are generally socially disadvantaged in that they achieve at lower levels in key areas (education, employment and income) than the White majority. For instance, although higher proportions of them than the White majority attend higher education, all ethnic minorities are less successful than Whites in terms of graduating with above-average grades, and individuals from all ethnic minorities earn less than White people. The Black (notably the Caribbeans), Bangladeshi and Pakiskani subgroups in particular are most likely to attain at lower levels than Whites (Bhattacharyya, Ison, & Blair, 2003; Clark & Drinkwater, 2007).

<sup>3</sup> In the experiment, after children gave their own choice of preference (and rejection), they were asked about their reason for their choice. The same was done after choices about mothers' inferred preference and rejection were made. The reasoning questions were asked to check that children had understood and replied to each question rather than answering in a response set and to provide another source of data (the dataset of reasoning was too varied and is not presented in this paper).