Effects of experimentally-induced peer group rejection and outgroup ethnicity on children’s anxiety, self-esteem, and ingroup and outgroup attitudes.

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Keywords: peer group; rejection; outgroup attitudes; anxiety; self-esteem
Abstract

A minimal group study examined the effect of peer group rejection on children’s state anxiety and self-esteem, as well as their attitudes towards the rejecting group and an outgroup that had the same or different ethnicity to the participants. Seven and 9-year old Anglo-Australian children ($N = 104$) were randomly assigned to an Anglo-Australian team for an intergroup drawing competition. The competitor team had children with the same (i.e., Anglo-Australian) or different (i.e., Pacific Islander) ethnicity as their own team. The children then role-played that they had been accepted or rejected by their team members. Children’s subsequent ratings indicated that peer group rejection caused a decrease in self-esteem and an increase in anxiety, dislike for the rejecting ingroup, but greater liking for the outgroup, regardless of its ethnicity. Results also indicated that, regardless of peer status, children expressed greater liking for the ingroup when there was a different versus same ethnicity outgroup, and greater liking for the same versus different ethnicity outgroup. The implications of the findings for peer group rejection research are discussed.
Effects of experimentally-induced peer group rejection and outgroup ethnicity on children’s anxiety, self-esteem, and ingroup and outgroup attitudes.

This study focused on the immediate effects on children of their rejection by an ingroup (i.e., the group of which the person of concern is, or recently has been, a member), during the early middle childhood years. Of particular concern were the effects of ingroup rejection on children’s state anxiety and self-esteem, their attitudes towards the members of the rejecting group, as well as their attitudes towards an outgroup (i.e., a group of which the person of concern is not a member) that had the same or different ethnicity as the participants. In addition, the research assessed the predictions of two of the current developmental approaches to children’s ethnic attitudes, socio-cognitive theory (ST; Aboud, 1988) and social identity development theory (SIDT, Nesdale, 2004), concerning the effects of age on children’s ethnic attitudes during the middle childhood years, by comparing the attitudes of seven and nine-year old children towards the same versus different ethnicity outgroup.

The present interest in the effects of rejection by a peer group was stimulated by research indicating that, from at least as young as 5 or 6 years of age, social groups have considerable importance to children. Indeed, according to some writers, children’s early orientation to other individuals and groups may reflect an inborn fundamental need to be accepted and to belong (Baumeister & Leary, 1995). It appears that if there is the possibility of inclusion in a group, children typically seek to be included and, once included, their group, and their membership of it, becomes a central focus of their attention (Bukowski, 2003; Ladd, Herald, & Andrews, 2006; Rubin, Bukowski, & Parker, 1998). Consistent with this are their tendencies to like, and to see themselves as similar to, other ingroup members by school age (Bigler, 1995; Bigler, Jones, & Loblimner, 1997; Nesdale, Durkin, Maass, & Griffiths, 2004, 2005; Nesdale & Flessor, 2001), and to be influenced by the ingroup’s norms relating to...
attitudes and behaviours towards outgroup members (Nesdale Maass, Durkin, & Griffiths, 2005; Ojala & Nesdale, 2004).

Other research has also revealed that, from 5 years onwards, children show less and less liking for ingroup members who do not conform to ingroup norms (e.g. Abrams, Rutland, Cameron, & Marques, 2003; Abrams, Rutland, & Cameron, 2004; Nesdale, 1999; Nesdale & Brown, 2004). In addition, there is evidence that children spontaneously compare their group with other groups (Chafel, 1986; Yee & Brown, 1992) and that they prefer to be members of higher rather than lower status groups and, when the ingroup has lower status, members are prepared to leave the group if it is possible and an opportunity presents itself (Nesdale & Flessner, 2001; Nesdale, Durkin et al., 2004).

Given that group membership is clearly important and desirable to young children, it follows that rejection by their peers, or even the threat of rejection, would have the potential to exert a considerable impact on them. At present, however, there is little evidence that bears directly on the issue of the immediate impact of peer group rejection on children. However, some insights in relation to this issue are provided by research on children’s peer interactions and relationships, particularly that which has compared children who are classified as rejected with those classed as average, rejected, neglected, controversial, or popular (see Bierman, 2004; McDougall, Hymel, Vaillancourt, & Mercer, 2001; Rubin et al., 1998). Typically, in these studies, children nominate others whom they like, as well as those whom they don’t, and rejected children are those who receive few “like” nominations and many “dislike” nominations. The rejected children are then characterized by their peers or teachers who describe their notable or problematic personal, social, and/or behavioural qualities (Cadwallader, 2001).

Based on these studies, together with observational research and follow-forward longitudinal studies (see Rubin et al., 1998), research has revealed that chronic rejection is
associated with a range of antisocial behaviours in children during the middle childhood years. Although there is no single prototypic profile of a rejected child, children are usually rejected because their behaviours irritate and annoy others (Bierman, 2004). For example, rejected children may be more argumentative, disruptive, and aggressive, may be more socially awkward and insensitive, may be less skilful in engaging in pro-social play, and may have more negative interactions with teachers (see Bierman, 2004; Coie, Dodge, & Kupersmidt, 1990; McDougall et al., 2001). Unfortunately, these problems are exacerbated by the nature of their subsequent interactions with their peers. The latter tend to dislike rejected children, to perceive them as misfits or deviants, they give them less visual attention and more harassment, attribute more negative qualities to them, interpret their behaviours more negatively, and perceive them as more responsible for their negative behaviours (e.g., Bierman, 2004; Nagle, Erdley, & Gold, 1996).

This brief review indicates that peer rejection is a social phenomenon that has serious implications for the targeted children. However, although much has been learnt about peer relationships and their effects, there are a number of issues that remain to be pursued. For example, the extant findings actually have little to say about the effects of rejection by a peer group. While the nomination technique effectively identifies those children who are typically or frequently rejected by others, whether or not such children have been rejected by individuals or groups or both, and whether this difference impacts on rejected children, has not been the subject of previous research.

In addition, although the evidence reveals consistent associations between peer rejection and the affective, cognitive, and behavioural effects noted above, the causal direction of such findings is ambiguous because they were commonly obtained in correlational studies (Cillessen & Mayeux, 2004; Dodge, Lansford, Burks, Bates, & Pettit, 2003; Sandstrom & Zakriski, 2004). In short, it is frequently unclear whether the rejection
Effects of peer group rejection on children

preceded or followed the perception of the undesirable quality in the rejected child. Clearly, the utilization of observational and follow-forward studies (e.g., Dodge, 1983; Coie & Kupersmidt, 1983; McDougall et al, 2001) strengthens claims for causality, but the typical quasi-experimental nature of these designs still does not permit strict causal conclusions (Cillessen & Mayeux, 2004).

In view of this limitation, several researchers have sought to manipulate children’s peer status in controlled experimental studies. However, presumably because of the ethical implications, these studies have tended to subject the participants to an ambiguous peer status manipulation (Downey, Lebolt, Rincon, & Freitas, 1998; Goetz & Dweck, 1980; Sandstrom, Cillessen, & Eisenhower, 2003; Zakriski & Coie, 1996). For example, in the Downey et al (1998) study, children were told that an invited friend would not join them in the session because the friend “did not want to come”. Unfortunately, the ambiguity in such studies has meant that it is not immediately clear what has been the cause of any resulting effects. For example, the child might be responding to the frustration of not having someone to play with, or the suspicion/belief that they had been rejected, or simply the ambiguity or uncertainty of the situation. In addition, in relation to the focus of the present study, the “rejection” in each case was from a single child, rather than from a group of peers.

The result is that there is much more to learn about the nature of peer rejection and its effects. In particular, issues that require further attention include the impact on children of such factors as: who did the rejecting (i.e., individuals, groups, or both), in what circumstance (i.e., classroom, playground, sports), for what reason (i.e., something personal about the child, or some category to which s/he is perceived to belong), and how frequently did the rejection occur (i.e., daily, weekly).

In addition, although much is now known about chronic rejection and its effects, little is actually known about the direct and immediate effects of peer rejection, especially
rejection by a peer group. Focusing on the immediate effects of peer rejection is important because it is critical to building up a complete picture of how children respond to rejection, ranging from an initial instance of rejection to the experience of chronic rejection. Moreover, it is also important to examine the impact of a subsequent instance of rejection, as well as acceptance, on a child who has experienced chronic rejection. Such findings are essential to developing a comprehensive account of peer rejection and its effects.

The present research sought to address some of the preceding issues. First, the study examined children’s affective responses to peer group rejection, including their state anxiety. Consistent with Spielberger (1973, p.3), for the purposes of the present study, state anxiety was conceptualised as “a transitory, subjective, consciously perceived feeling of apprehension, tension and worry”. Given that group membership is apparently of considerable importance to children, even those as young as 5 or 6 years, the first aim of the present study was to determine whether peer group rejection would immediately instigate feelings of heightened state anxiety in the participants.

A second issue examined in the present study was the possibility that peer group rejection versus acceptance might also cause an immediate loss in children’s self-esteem or sense of self-worth, especially in terms of their relations with others. Implicit in this view is the long-held conception of children’s self-esteem as being greatly influenced by the evaluations of others (Cooley, 1902; Coopersmith, 1967). Although young children typically have a positive and optimistic view of themselves and their accomplishments (Durkin, 1995), by middle childhood their self-perceptions are increasingly influenced by the evaluations of others, in relation to their social, cognitive, and physical competence, as well as their general self-worth. Moreover, these self-evaluations progressively become more stable as they increase in age (Harter, 1988, 2006). Although there is evidence that their self-evaluations are often reasonably accurate reflections of how others perceive them (Harter, 1982), some
Effects of peer group rejection on children 8

children (e.g., aggressive-rejected versus withdrawn-rejected children) are fairly inaccurate perceivers of their level of social acceptance (Hymel, Bowker, & Woody, 1993; Zakriski & Coie, 1996).

On this basis, it seems plausible that a child’s self-esteem would likely decrease following peer group rejection because their status as a group member would have abruptly plummeted. Consistent with this is research that has revealed an inverse relationship between peer rejection and self-esteem (see Sandstrom & Zakriski, 2004), although the latter finding has typically been reported in correlational studies and might reflect the effect of chronic rejection.

However, there is another view that contrasts with the preceding expectation. Specifically, given that the development of a sense of social self-esteem or social competence would typically be based on many interpersonal experiences (some positive and some negative), it is possible that a single instance of peer group rejection might actually be unlikely to have a dramatic effect on self-esteem. That is, self-esteem deficits might require more than one experience of rejection from the same or other groups (Bierman, 2004).

The latter view accords with Williams’ (2001) model of the impact of rejection on adults. Briefly, in that model, the immediate impact of peer rejection is to instigate feelings of anxiety and negative affect which are followed in the short-term by attempts to re-establish and strengthen relationships. If the latter attempts are unsuccessful, they are followed, in the longer term, by self-imposed isolation and reduced self-esteem. Consistent with Williams’ (2001) model, two earlier studies by Nesdale & Lambert (in press a, b) using the present experimental paradigm failed to find an effect of peer group rejection on children’s self-esteem. Given the importance of the issue, the present study afforded another opportunity to examine the immediate effect of peer group rejection on children’s self-esteem.
Third, the present study also sought to examine the impact of peer group rejection on the rejected children’s reactions to the group of rejecting children. Again, several responses seemed possible. For example, if the children did experience heightened anxiety and/or reduced self-esteem as a result of the rejection, it was plausible that they might display dislike for the rejecting group. Alternatively, however, if, as Williams’ (2001) model for adults suggests, a short term response by a rejected child is to attempt to restore relations with those who delivered the rejection, children might evidence a level of liking which is little different to that displayed by accepted children, regardless of any anxiety they might be experiencing. The present study also sought to examine these possibilities.

Finally, the study considered the impact of peer group rejection on children’s responses to other outgroup members in the social situation. In particular, the research addressed the possibility that a majority group child who has been rejected by the majority group members of their ingroup might react with negative attitudes or prejudice towards members of groups who have lower status and/or power, such as ethnic minority group members, presumably because such targets are less able or likely to retaliate.

There are several pieces of evidence that are consistent with a causal linkage existing between peer group rejection and outgroup prejudice. For example, there appears to be some similarity between outgroup prejudice and a number of the behaviours typically displayed by rejected children. Thus, as noted above, research has revealed that peer rejection is associated with a variety of interpersonally negative behaviours, such as being disruptive and interfering, arguing with other children, as well as talking back to teachers (Bierman, 2004; Coie et al., 1990; Rubin & Coplan, 1992). More directly, at least one study has explicitly addressed the possibility of a relationship between peer rejection and outgroup prejudice (Kiesner, Maass, Cadinu, & Vallese, 2003). In that study, peer rejection was based on the nominations of seventh grade northern Italian students, who also indicated their attitudes
Effects of peer group rejection on children

regarding a number of European national (e.g., Albanians, French, Germans), Italian regional (e.g., southern Italians, Veneti), and other groups (e.g., gypsies) who attract varying degrees of prejudice from Italians. Kiesner et al reported a positive correlation between peer rejection and ethnic prejudice – the more the participants were rejected by their peers, the more negative were their attitudes towards the ethnic outgroups.

However, it needs be recognised that peer rejection in that study was based on peer nomination, and that the causal direction between rejection and prejudice was unclear because it was a correlational study. In addition, the positive association between peer rejection and ethnic prejudice was only revealed when the children’s self-esteem was low, which might be taken to suggest that it resulted from multiple experiences of peer rejection. Finally, the study focused on adolescents rather than elementary school children.

In sum, although the evidence is certainly not unambiguous, there are grounds for supposing that that there might be a causal linkage between peer group rejection and outgroup prejudice. Accordingly, a further aim of the present study was to examine the immediate causal effect of peer group rejection on outgroup prejudice. To facilitate this aim, the context of the present study was revealed to be an intergroup drawing competition where the ethnicity of the competitor outgroup was experimentally manipulated. Thus, the Anglo-Australian participants found that the competitor outgroup was comprised of same ethnicity (i.e., Anglo-Australian) or different ethnicity (i.e., Pacific Islander) children as themselves. Consequently, the study enabled assessment of the children’s attitudes towards a same or different ethnicity outgroup, following their peer group rejection or acceptance.

Of particular relevance to the latter aim was the age of the children who participated in the present study. Specifically, two of the major explanations of the development of children’s outgroup prejudice, socio-cognitive theory (ST; Aboud, 1988) and social identity development theory (SIDT, Nesdale, 2004), differ in their predictions concerning age
Effects of peer group rejection on children

changes in outgroup prejudice during the early middle childhood years. Whereas SIDT predicts no such changes, ST contends that most, if not all, children display ethnic prejudice by 7 years of age. Further, whether or not it is maintained after this age depends mainly upon the acquisition of concrete operational thinking which allows children to differentiate individuals, instead of responding to them simply as category members. Consequently, ST predicts that children’s attitudes towards ethnic outgroups become more positive beyond 7 years of age, whereas their attitudes towards the ingroup become less positive, as the members of the two groups are viewed in an increasingly similar way (Doyle, Beaudet, & Aboud, 1988). Although there is some research support for ST (Aboud, 1988), there are also findings that are a challenge for the theory (see Nesdale, 2001). The inclusion of samples of 7 and 9-year old children in the present study allowed for the further assessment of possible age effects in their responses towards an outgroup that had the same (Anglo-Australian) or different (Pacific Islander) ethnicity to the ingroup, following their rejection or acceptance by their ingroup.

Critical to the four-fold objective of the study was the need to employ a paradigm that would be credible and engaging to children, but would allow for the manipulation of peer rejection so that its possible causal effects could be examined, yet in an ethically responsible manner. To meet this objective, we used a variant of the minimal group paradigm that we have used in our research on the development of children’s ethnic prejudice (e.g., Nesdale, Durkin et al., 2004, 2005; Nesdale & Flesser, 2001; Nesdale, Maass et al., 2005).

Briefly, given children’s capacity for, and interest in, socio-dramatic play (Rubin et al., 1998), individual children are invited to participate in a pretend intergroup drawing competition and are assigned membership in a group. The child then engages in activities designed to enhance their ingroup identification. At this point, the participant is asked to pretend that s/he has been rejected by the other group members, or that the group members
have endorsed his/her membership of the group. The child is then introduced to the competitor group, before being asked to respond to the main measures.

The advantage of this technique to research on children’s peer group relations is that, after being accepted or rejected by a group, the participants’ reactions can be examined in relation to themselves, the members of their (accepting or rejecting) ingroup, as well as to other individuals and/or members of outgroups. In addition, the minimal group paradigm allows researchers to simulate different types of peer relationships and situational contexts. Most importantly, the fact that the paradigm allows for the manipulation of peer relations, as well as the situational context, means that causal inferences can be drawn, an advantage that is not afforded to correlational designs.

Our research to date confirms the effectiveness of this paradigm. Nesdale and Lambert (in press a) found that peer group rejection versus acceptance increased children’s tendencies towards risky decision-making as the children increased in age. In addition, Nesdale and Lambert (in press b) reported that peer group rejection versus acceptance increased children’s tendencies towards engaging in maladaptive social behaviours.

In sum, 7 and 9-year old Anglo-Australian children in the present study learned that they were accepted or rejected by their ingroup, prior to a purported drawing competition involving a competitor outgroup. The competitor group was either of the same (Anglo-Australian) or different (Pacific Islander) ethnicity to the Anglo-Australian participants and the members of their (rejecting or accepting) group. The children’s state anxiety and self-esteem, and their attitudes towards the (rejecting or accepting) group, as well as their attitudes towards the (same or different ethnicity) outgroup, were then assessed.

Method
Participants

The sample comprised 104 white Anglo-Australian boys and girls, with 52 from grade 2 ($M = 7.46$ years, range: 6.81 to 8.33 years) and 52 from grade 4 ($M = 9.44$ years, range: 8.61 to 10.50 years), with 21 boys and 31 girls at grade 2, and 22 boys and 30 girls at grade 4. The children attended two primary schools serving the same lower-middle class community. After gaining ethical approval for the research from the university, the State Department of Education, and the two school principals, permission was sought from individual parents for the children’s participation. The parents ($n=245$) of all the children in grades 2 and 4 in the two schools were informed that the research would involve children role-playing their involvement in different social groups. The children who participated in the study were randomly selected from those whose parents returned completed consent forms ($n= 154$ or 63%). No attempt was made to include or exclude children on the basis of their existing peer relationships.

Design

The study had a 2 (age: 7 versus 9) x 2 (peer group status: accepted versus rejected) x 2 (outgroup ethnicity: same versus different) factorial between subjects design. Within age and gender, the children were randomly allocated into the peer group status x outgroup ethnicity conditions.

Materials

Photos. The set of photos used in the study was drawn from the pool of photos that has been developed and pre-tested by the authors, as detailed in a previous report (Nesdale, Maass, Griffiths, & Durkin, 2003). Within age and gender, the head-and-shoulder colour photos were of Anglo-Australian and Pacific Islander children. The latter children were chosen because they are physically different (i.e. facial features, skin colour, hair texture) to white Anglo-Australian children. Pacific Islander people typically have lower socioeconomic
status than Anglo-Australian people and this is known by Anglo-Australian children as young as 5 years. However, the relationship between the two peoples has not been characterized by antipathy, disharmony or disputes (Griffiths & Nesdale, 2004). Photos selected were matched for expression (not smiling) and attractiveness (moderate). Each photo was 150mm X 110mm and pasted onto a 200mm X 200mm white cardboard square. A board was used to display the photos to the children in the study.

Response booklet. A response booklet containing the main measures was prepared for each participant. The booklet included a randomly ordered series of questions, each with an accompanying 5-point unipolar or bipolar scale. Each scale comprised five pictures of animals or faces that were graded in size from the smallest to the largest (unipolar scale), or with the largest pictures at the two end points and the smallest in the middle (bipolar scale). The response options on the unipolar scale ranged from 0 (a small amount of the attribute) to 4 (a large amount of the attribute). The response options on the bipolar scale ranged from 0 (a negative response) to 2 (a neutral response) to 4 (a positive response). Each point on each scale was labelled appropriately.

State anxiety was measured using state anxiety items drawn from the State-Trait Anxiety Inventory for Children (Spielberger, 1973). Initially, 13 items were selected for use and these were pilot-tested with the same convenience sample of children noted above. Based on an analysis of their responses, 5 items were excluded, giving a final scale of 8 items. Children gave their responses to the items (e.g., “Right now I feel... upset, good, worried, scared, mixed-up, unsure, happy, satisfied) on a 5-point uni-polar scale from 0 (Not at all) to 4 (A lot), after being asked to circle the response that described them the most. Total state anxiety was scored by summing the scores on the 8 items, giving a range of scores from 0 (low state anxiety) to 32 (high state anxiety). As used in the present study, the state anxiety scale had Cronbach alpha of .85
Self-esteem was measured using a 7-item scale, with 4 items drawn from the Coopersmith Self-Esteem Inventory (Coopersmith, 1967) and 3 items from the Rosenberg Self-Esteem Questionnaire (Rosenberg, 1975), with the wording of the latter items appropriately modified for children. Initially, 12 items were drawn from these scales and pilot-tested on a convenience sample of 21 children aged 6 to 8 years with the selection of the final 7 items being based on an analysis of the pilot study results. The final scale included items measuring the children’s sense of positive self-regard (“I am happy with myself”, “I feel I can do things as well as anyone else”, “I feel I am an important person, at least as important as others”), and their sense of the esteem with which they are held by others (“I think I am popular with kids of my age”, “I think I am easy to like”, “Kids usually follow my ideas”, “I feel I am fun to be with”). Children gave their responses on a 5-point uni-polar scale from 0 (Not at all) to 4 (A lot), after being asked to circle the response that described them the most. Total self-esteem was scored by summing the scores on the 7 items, giving a range of scores from 0 (low self-esteem) to 28 (high self-esteem). As used in the present study, the self-esteem scale had a Cronbach alpha of .75 across all the participants. However, given that children’s self-esteem is subject to development through the years encompassed by the participant sample (Harter, 2006), separate reliability analyses were carried out for each age group. The results revealed that the responses of the younger children (alpha = .48) were less consistent than those of the older children (alpha = .88).

Ingroup attitudes were measured using a liking scale employed by Nesdale and colleagues (Nesdale et al., 2003; Nesdale, Durkin et al, 2004, 2005; Nesdale, Maass, Durkin et al., 2005). The participants were asked how much they liked the members of their own team (How much do you like the other children in your team?), the responses being given on a bipolar scale of sad to happy faces, ranging from 0 (I don’t like them a lot) to 4 (I like them a lot).
Outgroup attitudes were also measured via the participants’ responses to a question which asked how much they liked the members of the other team (How much do you like the children in the other team?), the responses being given on a bipolar scale of sad to happy faces, ranging from 0 (I don’t like them a lot) to 4 (I like them a lot) using 3 items.

Change Teams. In addition, the participants’ desire to change teams was also assessed (How much would you like to change to the other team?), with an associated unipolar scale ranging from 0 (I don’t want to change teams at all) to 4 (I want to change teams a lot).

Procedure

All students in years 2 and 4 from the participating schools were asked by their teachers to do a drawing of themselves on a 145mm X 210mm piece of paper. The children were told that during the next week some visitors would look at their drawings, if their parents had given permission for them to participate. One week later, the children with parental permission were tested individually by the second author, away from the classroom. Prior to the commencement of each individual testing session, an instant head-and-shoulders photo was taken of the child. The children were then asked to pretend that they were going to participate in an intergroup drawing competition that would involve children from other schools in the area. Accordingly, they were asked to pretend that all the children’s drawings had been judged by an artist and that the children were being put into groups of similar drawing ability. The children in the present study were then told that the judge had considered their drawings and that they had been put into a team of drawers “just like you”.

The child was then shown the photos of the other two same-aged, same gender, and same ethnicity members of their team displayed on a board. To enhance their ingroup categorization and identification, they were asked to pin their photograph on the board between the photos of the other two team members (ingroup). The child was also asked to have a good look at their other team members.
At this time, to manipulate peer group status, a child in the acceptance condition was asked to pretend that the other members of their team really liked their drawing and had explicitly requested that they, rather than any of the other children, join their team. The child was also told that the other members had given him/her the opportunity to select a colour name (e.g., red, blue) for the team, and this was written beside their team photos. In contrast, a child in the rejection condition was told that the other team members actually did not like the child’s drawings and did not want the child in their team, preferring another child to be the member. The researcher indicated, however, that she had ignored their wishes and put the child in the team. To emphasise the pretend rejection, the child was told that the other team members had chosen the team colour, without asking that particular child.

A sheet of paper covering half of the board was then removed to reveal the members of the other (outgroup) team and the experimenter advised the child of the other team’s chosen colour name. To manipulate outgroup ethnicity, the photos of the outgroup members revealed them to be either of the same (i.e., Anglo-Australian) or different ethnicity (i.e., Pacific Islander) as the Anglo-Australian participant and the participant’s team. As with the ingroup, the children were asked to have a good look at the photos of the members of the outgroup. No mention was made of the outgroup’s ethnicity. Thus, comparison of the children’s responses between conditions differentiated only by the ethnicity of the outgroup provided a clear test of whether the ethnicity variable, which was marked only by physical differences, was salient to the participants.

The children were then directed to their response booklet which contained a series of questions, each accompanied by a unipolar or bipolar scale, with each point on each scale labelled appropriately. To ensure that each child was comfortable with using the unipolar and bipolar scales, they first completed several practice questions, under the direction of the experimenter. As noted above, the booklet contained measures of the children’s self-esteem,
state anxiety, liking for the ingroup, and the outgroup, and a measure of the extent to which
they would wish to change to the other group. The children then completed the questions in
the booklet, some of which were filler items so as not to focus attention on the main
dependent measures.

When the participants had completed the response measures, those who had
experienced the rejection manipulation were taken through the complete acceptance
manipulation to ensure that all participants fully appreciated that they had participated in a
pretend game. The researcher then discussed their participation with them, clarifying any
questions that they might have had, and responding to any concerns about the pretend game.
Care was taken in the debriefing session to ensure that when the children left the
experimental setting, they were completely unaffected by their role-playing experience. The
participants were then asked to keep the details of the pretend game secret from the other
children so that it would be a new game for them. All the participants agreed to do so. They
were then given their own photos, thanked for their participation in the pretend game, and
returned to their classrooms.

Results

Preliminary Analyses

Exploratory data analyses were first carried out on the children’s scores on each of the
5-point scales to ensure that they met the distributional requirements of ANOVA. The data
on each measure were then examined for gender effects and, since none were revealed, the
subsequent analyses summed over the gender variable.

Main Findings.

State anxiety. The participants’ summed scores on the state anxiety scale were
analysed in a 2 (age: 7- versus 9- years) x 2 (peer group status: accepted versus rejected) x 2
(outgroup ethnicity: same versus different) ANOVA. This analysis also revealed only a
Effects of peer group rejection on children

significant main effect for peer group status, $F(1, 96) = 198.83, p < .001$, partial $\eta^2 = .67$; children in the peer group rejected condition ($M = 26.62, SD = 5.36$) revealed a significantly higher level of state anxiety than did the children in the peer group accepted condition ($M = 13.29, SD = 4.13$).

Self-esteem. The participants’ summed scores on the self-esteem scale were analysed in a $2 \times 2 \times 2$ ANOVA. This analysis revealed only a significant main effect for peer group status, $F(1, 96) = 8.52, p < .01$, partial $\eta^2 = .08$; children in the peer group rejected condition ($M = 18.16, SD = 5.68$) had significantly lower self-esteem than did the children in the peer group accepted condition ($M = 21.11, SD = 4.59$).

Ingroup and Outgroup Liking. The participants’ liking ratings for the ingroup and outgroup were analysed in a $2 \times 2 \times 2 \times 2$ ANOVA, with the last factor within subjects. This analysis revealed three significant effects. There was a significant main effect for target, $F(1, 96) = 13.68, p < .001$, partial $\eta^2 = .13$, which was qualified by two significant interactions, including a target x peer group status interaction, $F(1, 96) = 94.86, p < .001$, partial $\eta^2 = .50$. As indicated in Fig. 1, comparisons of the cell means using Duncan’s Multiple Range Test revealed that peer group accepted children’s liking for the outgroup ($M = 1.61, SD = 1.31$) was significantly lower than their liking for their ingroup ($M = 3.71, SD = .49$), whereas peer group rejected children’s liking for the outgroup ($M = 1.82, SD = 1.34$) was significantly higher than their liking for the ingroup ($M = .88, SD = 1.09$).

From another perspective, comparison of each mean with the neutral scale mid-point of 2 using a related samples t-test, indicated that the peer group accepted children evidenced a significant degree of liking for the ingroup, $t(51) = 24.76, p < .001$, whereas the peer group
rejected children revealed a significant degree of dislike for the ingroup, \( t (51) = 7.33, p < .001 \). In contrast, the peer group accepted children revealed significant degree of dislike for the outgroup, \( t (51) = 2.11, p < .05 \), whereas the peer group rejected children’s ratings were more nearly neutral, \( t (51) = .93, p > .35 \).

The analysis also revealed a significant target x outgroup ethnicity interaction effect, \( F (1,96) = 4.92, p < .05 \), partial \( \eta^2 = .05 \). As indicated in Fig. 2, comparisons of the cell means revealed that children liked the ingroup more when the outgroup’s ethnicity was different (\( M = 2.54, SD = 1.56 \)) rather than the same as their own (\( M = 2.05, SD = 1.72 \)), whereas they liked the outgroup more when the outgroup’s ethnicity was the same (\( M = 1.83, SD = 1.31 \)) rather than different (\( M = 1.61, SD = 1.34 \)) to their own.

Change groups. The participants’ responses to the item asking whether they wished to change groups were analysed in a 2 (age: 7- versus 9- years) x 2 (peer group status: accepted versus rejected) x 2 (outgroup ethnicity: same versus different) ANOVA. This analysis revealed only a significant main effect for peer group status, \( F (1, 96) = 76.44, p < .001 \), partial \( \eta^2 = .44 \); children in the peer group rejected condition (\( M = 2.40, SD = 1.43 \)) revealed that they were much keener to change groups than were the children in the peer group accepted condition (\( M = .40, SD = .84 \)).

Discussion
The present study sought to use an experimental methodology in order to examine the immediate causal effects of peer group rejection on children. Of particular concern was the effect of peer group rejection on children’s state anxiety and self-esteem, their attitudes towards the rejecting group, as well as their attitudes towards a same or different ethnicity outgroup.

*Peer Group Rejection and Children’s State Anxiety.*

The results indicated that the peer group rejection manipulation caused a substantial increase in the participants’ state anxiety, regardless of their age, consistent with earlier findings (Nesdale & Lambert, in press a, b). There are several points worth noting about this effect. First, it confirms that children, like adults (Baumeister & Tice, 1990; Williams, 1997), are seemingly extremely sensitive to the possibility of rejection and exclusion by others including, in the present case, a group of children. Even though the rejected children never actually saw or met the members of the rejecting group, and the rejection was conveyed by a third party, the experience was sufficient to exacerbate their state anxiety.

Second, as noted earlier, most research on the effects of peer rejection is correlational and focuses on chronically rejected children who have been nominated by their peers (Rubin et al, 1998). In the present study, the participants’ state anxiety (and self-esteem and peer status) was not measured prior to the study. Instead, the participants were randomly selected children who were randomly assigned to the peer group rejection or acceptance conditions. That is, any differences between the participants in their pre-existing anxiety and self-esteem, as well as their peer status, were experimentally controlled by the application of randomization (Campbell & Stanley, 1963). Consequently, any effects revealed in the study can not be attributed to the participants’ pre-existing conditions or experiences, or to their self-selection. Rather, any findings are due to the causal effect of the experimental manipulation of peer group status.
On this basis, the causal effect of peer group rejection on children’s state anxiety is unambiguous. Moreover, the present findings are representative of the effects that an experience of peer group rejection is likely to have on the normal range of children. Clearly, the findings suggest that peer group rejection exerts a substantial effect on the anxiety of most young children.

Third, bearing in mind that the present finding related to a single experience of rejection, it serves to emphasize the likely negative effects of sustained or repetitive rejection. As other research has made clear, chronic rejection may be associated with depression and loneliness (e.g., Boivin & Hymel, 1997; Ladd & Coleman, 1997; Panak & Garber, 1992; Renshaw & Brown, 1993), although the exact nature of the conditions under which this occurs, remains to be determined in future research.

Fourth, whereas the present findings indicated that peer group rejection exerted an immediate and direct effect on the children’s anxiety, it actually sheds little light on how long such an effect might last. Indeed, the debriefing following the children’s role-playing experience was designed to ensure that they left the experimental setting unaffected by their role-playing experience. Consequently, determination of the extent to which such rejection effects persist or accumulate will have to await other research.

Finally, the linkage between peer group rejection and state anxiety in the present study is consistent with the association that has been documented in correlational studies between peer rejection and anxiety (Sandstrom & Zakriski, 2004). Although the latter findings relate to those who have suffered chronic rejection, the finding of a causal relationship in the present study serves to strengthen confidence in the external validity of the immediate effects of peer group rejection obtained using the minimal group paradigm.

*Peer Group Rejection and Children’s Self-esteem.*
Although the effect was not as dramatic, the findings also indicated that peer group rejection caused a significant reduction in the children’s self-esteem, again regardless of the participants’ age. This finding is also noteworthy for several reasons. First, although it is plausible that peer group rejection would give rise to a significant increase in children’s state anxiety (i.e., an immediate and transitory effect), it might have been supposed that a decrease in self-esteem (i.e., a child’s sense of self-worth, normally marked by stability, especially as children increase in age) might require a more substantial and/or more sustained experience of rejection than was the case in the present study. Such was not the case; the single experience of peer group rejection was apparently sufficient to reduce their self-esteem.

Second, it is also noteworthy that the present finding is contrary to the results of two previous peer group rejection studies that used the same paradigm with similar-aged children (Nesdale & Lambert, in press a, b). Although the issue is certainly not straightforward, one possible explanation relates to the additional measures collected in those studies, compared with the present study. In short, in addition to self-esteem, those studies measured peer group rejected children’s tendencies towards risky behaviours (Nesdale & Lambert, in press a), as well as their tendencies towards anti-social behaviour, such as arguing, interfering, and taking others’ things (Nesdale & Lambert, in press b). In both cases, peer group rejection was strongly related to the behaviours (i.e., increased antisocial and risky behaviours), but was not related to the participants’ self-esteem. In contrast, in the present study, their self-esteem was significantly reduced, but their outgroup attitudes, in particular, were somewhat ambivalent (see below). Viewed together, this pattern of findings might be taken to suggest that the strong expression of the antisocial and risky behaviours in the earlier studies in some way moderated or counter-acted the effect of the peer group rejection on the participants’ self-esteem. However, while it is recognised that this suggestion is speculative, it nevertheless
suggests that future research could usefully address the relationship between peer rejection, self-esteem, and subsequent behaviour type.

Third, it is also worth mentioning that the effect of peer group rejection on self-esteem was unaffected by the participants’ age. This finding was interesting given that comparison of the internal consistency of the younger versus older children’s self-esteem responses in the present study suggested that the older children’s responses were more consistent or cohesive. Whereas the latter result accords with findings indicating that children in early middle childhood are still in the process of developing more stable self-evaluations (Harter, 2006), it did not differentially influence the participants’ self-esteem ratings following peer group rejection versus acceptance. Although the findings for the younger children should certainly be viewed with some caution, the effect of peer group rejection on participants’ self-esteem in the present study was just as strong at 7 and 9 years.

Peer Group Rejection and Attitudes Towards the Rejecting Group.

The third aim of the present study was to examine the impact of peer group rejection on the rejected children’s attitudes towards the rejecting group. It had been anticipated that the most plausible response by a child in these circumstances would be to dislike the rejecting group members. However, another possibility was that children might hold off on this response, in the hope that the relationship would be repaired and they would subsequently be accepted as a full member of the group. Indeed, as noted earlier, Williams (2001) has proposed such a sequence in his model of adults’ responses to rejection.

Consistent with our previous findings, the results indicated that the accepted children expressed significant liking for the ingroup (e.g., Nesdale, Durkin et al, 2004, 2005; Nesdale, Maass, Durkin et al., 2005; Nesdale et al., 2003). In contrast, the rejected children expressed considerable dislike for the rejecting ingroup members. Thus, even though the researcher had over-ruled the wishes of the ingroup in assigning the rejected child to that group, there was
little evidence that they saw themselves as a group member and/or wished to remain in the group. Indeed, perhaps not surprisingly, the rejected children revealed a strong interest in changing groups.

Peer Group Rejection and Attitudes Towards Same and Different Ethnicity Outgroups.

The fourth issue addressed in the present study concerned the attitudes of rejected children towards others in their social environment. Given a previous report of an association between peer rejection and ethnic prejudice which was obtained in a correlational study (Kiesner et al., 2003), our particular interest was whether peer group rejection would be shown to cause an increase in outgroup prejudice, especially towards a minority ethnic group. For this reason, children in the present study were asked to reveal their attitudes to an outgroup that was comprised of members with the same (i.e., Anglo-Australian) or different ethnicity (i.e., Pacific Islander) to themselves.

The results indicated that peer group rejection did impact significantly on outgroup attitudes. However, whereas the accepted children revealed significantly less liking for the outgroup than the ingroup, rejected children actually revealed greater liking for the outgroup than the ingroup. That said, it is also noteworthy that the effect of peer status was not interactively influenced by the outgroup’s ethnicity.

On the one hand, the results for the accepted children are consistent with previous findings in underscoring the importance of group membership in determining the greater liking of children for ingroup versus outgroup members (e.g., Bigler, 1995; Bigler, Jones, & Loblinner, 1997; Nesdale & Flessner, 2001; Nesdale, Durkin et al, 2004, 2005; Nesdale, Maass, Durkin et al., 2005; Nesdale et al., 2003; Vaughan, Tajfel & Williams, 1981; Yee & Brown, 1992). As in the previous studies, the mere assignment of a child to a group of unknown other children in the present study significantly increased their liking for the ingroup members, in comparison with the outgroup members. Moreover, the findings indicated that
the children liked their ingroup more than the outgroup at both 7 and 9 years of age (c.f. Aboud, 1988).

On the other hand, the results also indicated that, rather than instigating ethnic prejudice, peer group rejection actually caused the children to view the outgroup more, rather than less, positively than the ingroup, regardless of the outgroup members’ ethnicity. There are several possible explanations for this outcome, including the possibility that peer group rejection simply does not instigate outgroup prejudice. Against the latter possibility, however, is the finding by Kiesner et al (2003) of a positive relationship between peer rejection and prejudice, although that result was obtained in a correlational study in which the identification of rejected children was based on the nominations made by other children.

Perhaps a more plausible possibility is that, rather than focusing on the outgroup, the rejected children were simply more concerned about the uncertainty of their own position, and the limited options available to them concerning group membership. In terms of the latter, they might have felt that there was the possibility of somehow being re-accepted by the rejecting group, or perhaps the possibility of gaining membership in the outgroup, or maybe even the possibility of joining some other, unknown group.

Although the present findings do not shed a clear light on this suggestion, consistent with it are the findings that the children’s anxiety increased, and their self-esteem decreased, following peer group rejection versus acceptance. In addition, the rejected children revealed more positive attitudes towards the outgroup, as well as a greater preparedness to change groups, than did the accepted children.

Two implications for further research follow from this discussion. One implication is that research needs to be carried out in which children are simply rejected from their group, without any possibility of changing groups, and their attitudes towards same and different ethnicity outgroups are then assessed. A second implication is that that whether or not a
rejected child displays prejudice following peer group rejection might depend on whether s/he subsequently gains membership in another group. That is, as a member of a new group, a rejected child might feel sufficient security and certainty to express negative affect towards more vulnerable outgroup members, as well as towards the members of the rejecting group. Again, this suggestion needs to be assessed in future research.

Regardless of peer group status, the present research also revealed a significant target group x outgroup ethnicity interaction on children’s liking. The children indicated that they liked their ingroup more when the outgroup had different rather than the same ethnicity as themselves, whereas they liked the outgroup more when the outgroup had the same rather than different ethnicity to themselves. This finding is a comparatively pure instance of children’s ethnic prejudice, with the two halves of the effect complementing each other. Of particular note is the fact that, in the absence of an interaction involving the participants’ age, the finding provides more support for social identity development theory (SIDT, Nesdale, 2004) than socio-cognitive theory (ST; Aboud, 1988). Moreover, although part of the result confirms our previous findings that children dislike a different ethnicity outgroup more than a same ethnicity outgroup (Nesdale et al., 2003; Nesdale, Durkin et al., 2004), it also indicates that the presence of a different versus same ethnicity outgroup can actually strengthen their liking for their same ethnicity ingroup. Apparently, the presence of a different ethnicity outgroup enhances their sense of similarity to, hence liking for, the ingroup.

In sum, whereas previous research has documented the range of negative effects associated with chronic peer rejection (Bierman, 2004), the present study focused on the immediate effects on children of being rejected by a group of children. The results revealed that peer group rejection caused an increase in anxiety together with a smaller but significant decrease in self-esteem, increased dislike for the rejecting ingroup, but greater liking for the outgroup, regardless of its ethnicity. The findings also indicated that, regardless of their peer
group status, the children’s liking for both the ingroup and the outgroup was affected by the same versus different ethnicity of the outgroup. Viewed together, these findings provide some insight into the immediate effects of peer group rejection on young children and complement our more extensive understanding of the effects of chronic rejection.

At the same time, it is recognized that a range of issues need to be explored in order to consolidate and extend the present findings. For example, in the present research, ingroup and outgroup membership were simulated using the minimal group paradigm. Moreover, the membership of both groups was arbitrary rather than real, and the ingroup only included representatives of the dominant cultural group (i.e., Anglo-Australians). Clearly, the external validity of the research would be enhanced by investigations of related phenomena among members of real groups, including members of particular minority groups (Barrett, Lyons and Del Valle, 2004). In addition, as noted above, systematic research is needed to detail the extent of the impact of peer group rejection on outgroup prejudice, as well as on other responses, such as bullying and aggression.

Importantly, although the present paradigm has a number of limitations (see Nesdale & Lambert, in press b), it nevertheless appears to hold considerable promise as a technique for contributing to our understanding of the foregoing issues. While the children’s involvement in their ‘groups’ was certainly fleeting, the situation still encompassed the main elements of a peer relation scenario and the rejection manipulation clearly influenced their affective responses, as well as their reactions towards the (rejecting or accepting) ingroup and the outgroup. On this basis, it seems reasonable to conclude that the present results provide a good approximation of the effects that would be revealed in authentic peer group situations with a similar focus. Given the considerable importance of the need to fully understand the causes and consequences of peer group rejection, any approaches that have the capacity to
shed further light on this social phenomenon, in either laboratory or field settings, would appear to be worthy of utilization by researchers.
Effects of peer group rejection on children

References


Figure 1. Target x status interaction on mean liking for ingroup and outgroup members.
Figure 2. Target x outgroup ethnicity interaction effect on in-group and out-group liking.
Footnote:

This project was funded by the Australian Research Council to the senior author. The authors express their appreciation to the editor and reviewers for their insightful comments on an earlier version of this paper.