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Patterns of Aggression in New Zealand Children

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Abstract

Social aggression is a covert form of aggression, used to damage the self-esteem and/or status of another. Previous research has shown that girls tend to utilize this form of aggression more often than physical aggression. It is controversial as to whether they use social aggression more often than boys, however. The current study investigated this question through attempting to determine the prevalence of social and physical/verbal aggression in a sample of New Zealand primary school children. Factors that may coincide with or contribute to social aggression were also explored. Eight to 12-year-old children were asked to complete 6 tasks, measuring gender stereotypes, facial emotional recognition, empathy, peer ratings of social behaviour, understanding of social faux pas and attitudes about aggression. It was found that boys were more physically, verbally, and socially aggressive than girls. Consistent with previous research, girls preferred to use social aggression over physical and verbal aggression.
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Introduction

It is widely believed that males are more physically aggressive than females, and there is much empirical evidence to support this. For example, even by four years of age, boys display more physical aggression than girls, and this pattern continues throughout primary school (Keenan & Shaw, 1997). When considering statistics on convicted criminals in New Zealand, it is apparent that men represent the vast majority: in 2003, men were responsible for 89% of convictions for violent crimes, 85% of convictions for crimes against other people, and 88% of convictions for disrupting order (Ministry of Justice, 2004). Consequently, females are often viewed as non-aggressive. Recent research, however, has investigated other, more subtle forms of aggression that are often used by girls instead of overt or physical forms of aggression. These forms of aggression have been termed indirect, relational, or social aggression.

Definition

Indirect aggression refers to covert ways of hurting others that often engage the social community, such as gossiping and rumour spreading (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; cited in Loukas, Paulos, & Robinson, 2005). Relational aggression expands on these behaviours to include direct behaviours that intend to harm someone’s social status or relationships, such as deliberately excluding and ignoring people (Crick & Grotpeter, 1995). Social aggression encompasses both direct and indirect behaviours, as well as non-verbal forms of aggression such as gestures, rolling eyes at others, and making mean faces (e.g. “Girls can look at you, and you know they’re mad! They don’t have to say anything. You look at them and they roll their eyes and they have little slits in them” [Simmons, 2002]). The purpose of social aggression is to damage another’s self-
esteem and/or social status (Galen & Underwood, 1997). Galen & Underwood (2001) argued that it is important to include non-verbal types of behaviour in the construct of subtle forms of aggression because they are hurtful to children and adolescents, and they are experienced even more frequently than other aggressive behaviours (Paquette & Underwood, 19995). Facial expressions and gestures can communicate negative feelings or rejection, and it has been found that children who are rated highly on measures of relational aggression score similarly on peer nominations of exhibiting negative facial expressions (“These people make mean faces and roll their eyes at other kids”; Underwood, 1992). The term aggression is usually used to refer to any behaviour intended to hurt or harm others (Hart, Nelson, Robinson, Olsen, McNeilly-Choque, 1998). Neither of the definitional terms indirect and relational aggression include non-verbal behaviours, but these behaviours are often performed with the intent to hurt a peer’s feelings or social standing. For this reason, the present study utilized the construct of social aggression to investigate aggressive behaviours in children.

Social Aggression

There has been a recent explosion of research conducted into the use of social aggression by girls. Until recently, aggression in girls had been ignored or thought to be non-existent. For example, Buss (1961) claimed that there is no point in studying female aggression because women are so rarely aggressive. Girls’ aggression may have been neglected because of a variety of reasons. Firstly, the gender stereotype of girls as sweet, nice, polite and docile is very pervasive in society. Many researchers may have believed that research into aggression was not applicable to girls, because they simply did not
believe that girls exhibit aggressive behaviours. It also may have been taboo to approach the issue of girls as aggressive in any way, because it was thought of as gender deviant.

Secondly, historically men have dominated scientific theory and investigation. Because men may be less likely to experience social aggression, they may have failed to appreciate its prevalence and significance and thus failed to conduct research on the topic. These researchers may have genuinely been unaware that it existed, or the issue may have been deemed unimportant because it was irrelevant to men and thus not worthy of further investigation.

Thirdly, social aggression is much more difficult to measure and code than overt aggression. It is easier for outsiders to a social group to observe physical aggression such as hits, punches and shoves, and verbal aggression such as shouts and insults than it is to observe covert behaviours such as rumour spreading, eye-rolling, and excluding. These behaviours are much more subtle and harder to observe from a distance than overtly aggressive behaviours. Coding is also more controversial for social aggression. It is generally widely agreed upon which actions constitute overt aggression, whereas there is disagreement over which behaviours should be included in the construct of indirect, relational, or social aggression.

The recent abundance of evidence that girls also aggress has led some theorists to go so far as to speculate that girls are equally as aggressive as boys, but that the two sexes just aggress in different ways (Moretti, Holland, & McKay, 2001, Bjorkqvist, 1994). It has been well established that girls use social aggression more often than they use physical or verbal aggression (Ostrov & Keating, 2004; Paquette & Underwood, 1999, Young, Boye, & Nelson, 2006). Evidence, however, is conflicting on whether or not girls use social aggression more than boys do. Some studies have reported that girls use social
aggression more often than boys (Moretti et al., 2001; Bonica, Arnold, Fisher, Zeljo, & Yershova, 2003), even as young as preschool age (Ostrov & Keating, 2004; Crick, Casas, & Mosher, 1997). Others have shown that boys and girls use similar amounts of social aggression (Paquette & Underwood, 1999; Loukas, Paulos, & Robinson, 2005; Hart et al., 1998). Some studies have even shown that boys are more relationally aggressive than girls (Hennington, Hughes, Cavell, & Thompson, 1998; Tomada & Schneider, 1997; Rys & Bear, 1997; David & Kistner, 2000). The discrepancy in findings reported may be in part due to the differences in the definition and methodology used. For example, because social aggression researchers include more subtle behaviours in the construct of aggression typically used by girls, they may be more likely to report differences between genders than either indirect or relational aggression researchers would.

**Research Measures**

Researchers adopting these three definitions also use varying techniques to research aggression in girls, which likely has an effect on the data collected. Those assessing indirect aggression have generally measured aggression through peer ratings, where each child rates every other child on a Likert scale (for example, ratings between 1 – 5). Those studying relational aggression often assess aggression through peer nominations, where children vote for 3 children that are representative of certain behaviours. Peer nominations are not as sensitive a measure as peer ratings because nominations do not necessarily measure all the children taking part in the study. The fourth or fifth most aggressive child and the least aggressive child can potentially record similar results. Both relational aggression and social aggression researchers utilize self-
Social aggression is also often assessed through questionnaires and vignette measures, as well as through observational techniques.

It is very difficult to assess indirect, relational, or social aggression without using measures that may lead to bias. Bjorkqvist, Lagerspetz, and Kaukiainen (1992) argue that self-report is unreliable because children may be reluctant to admit to behaving in indirectly aggressive ways, or they may not in fact realize that they are doing so. Self-reports, as well as reports from other sources such as peers and teachers, may be tainted by gender stereotypes. The stereotype of girls as ‘catty’ and manipulating, and boys as physically aggressive and ‘tough’ may bias reporters’ data because they could be interpreting behaviour in ways that are consistent with gender stereotypes.

**Gender Stereotypes**

If parents and teachers, knowingly or unknowingly, stereotype children according to their gender, this may influence their perceptions of children’s expression of aggression. For example, Crick, Casas, and Mosher (1997) found that there were no differences in ratings of relational and overt aggression between girls and boys when preschoolers rated each other, but adult teachers rated girls as higher on relational aggression. The authors noted that this might be due to adults interpreting girl’s behaviour as consistent with gender norms. This in turn may affect how children behave. If they are shown that it is abnormal to express aggression overtly, they will be discouraged from doing so. However, children may also regulate their own behaviour through adhering to stereotypes. Children, as well as adults, may hold stereotyped beliefs, and these beliefs may influence their choices. Once they become aware of what is considered appropriate for their own sex, they may use this knowledge to dictate their
own behaviour. The pressure they put on themselves and their peers to conform to
gendered ways of acting may contribute to anxiety about adhering to the expectations of
others in their lives to fit stereotypes. For example, Maccoby (1998) proposes that the
role of adults in the socialization of gender is more limited than we have been led to
believe. She states that cross-generational pressure to conform to stereotypes is not as
strong as inter-generational pressure, or in other words, peers have more influence on
children than their parents do. If parents have such an influential role on their children’s
gendered behaviour, then aggressive boys should come from aggressive families,
Maccoby states, but evidence examining this line of thought does not show this to be the
case. She maintains that adult socialization of children still has an influence on children,
however, it is just not as strong an influence as that of peers.

Because findings reported are inconsistent as to whether girls use social
aggression more often than boys, it is important not to classify this type of aggression as
purely ‘female’. Research shows that boys also experience this type of aggression, and
they are hurt by it as well. Furthermore, although girls may use social aggression more
often than they use physical aggression, this does not confirm that they use social
aggression more often than boys do. It has been clearly demonstrated that boys use
physical and verbal aggression more often than girls. Therefore, for the two sexes to be
equally aggressive, it must be shown that girls are more socially aggressive than boys are.
Thus it still remains unclear as to whether or not the long-held belief that boys are more
aggressive than girls is justified.
Why do girls use social aggression more often than they use any other form of aggression?

Gender Roles

Some theorists have speculated that the reason why girls engage in social aggression may be in part due to socialization processes. Underwood (2003) proposes that girls are under societal pressure not to show anger and to always appear 'nice'. Girls are under pressure to conform to a feminine gender role of maintaining harmonious personal relationships, and overt confrontation is not consistent with this gender identity. To adhere to expected behavioural norms, more covert means of dealing with anger and resolving conflict may be utilized (Crothers, Field, & Kolbert, 2005). Thus, when someone causes a girl to be angry, she may not show this anger overtly, but instead express it to someone else behind the other person's back to prevent a negative evaluation from the perpetrator. Because society does not impose this restriction on boys, they are able to overtly express their anger to the perpetrator. As boys get older, they fall under greater pressure to curtail their physical aggression, but they are not under the same pressure to appear polite and nice.

Because the overt expression of anger is not as gender normative for girls as it is for boys, girls may fear negative evaluation from others because their behaviour may be seen as inappropriate or out of proportion. Underwood, Galen, and Paquette (2001) proposed that children's gender stereotypes likely influence how they choose to express anger towards peers. If they understand gender norms, they may be more likely to engage in behaviours consistent with their gender stereotype. This relates to children's
expression of anger – if they are aware that it is gender normative for boys to express anger overtly but not for girls, they may behave in accordance with these norms. For example, 2- to 3- year-old girls who are able to consistently label gender are less physically aggressive than those who are not as aware of gender (Fagot, Leinbach, & Hagan, 1986). Thus there is evidence that the socialization of children plays an important role in the way that they choose to convey anger.

This socialization of gender roles occurs early in life. For example, it has been shown that from the very beginning, parents judge their child’s appearance on their views about gender. In the 1970s, an experiment was done where parents saw their child for the first time through a hospital window, and were asked to describe the child’s appearance. It was obvious from these descriptions that the parents were strongly biased by the knowledge of the sex of their child, describing their sons as ‘robust, strong, alert, and large-featured’, and their daughters as ‘fine-featured, small, delicate, and soft’, when objective measures of the babies showed no difference according to sex (Rubin, Provenzano, & Luria, 1974; cited in Maccoby, 1998).

From a young age, girls are encouraged to behave in ways that are in accordance with gender roles. If parents hold stereotyped beliefs about the way males and females should behave, they may train their child to conform to what is deemed appropriate behaviour for their sex. This could be done through rewarding gendered behaviour through positive behavioural reinforcement such as a smile, and punishing behaviour that is inconsistent with the child’s gender through negative behavioural reinforcement such as a frown, a telling off, or reduced warmth. For example, girls are discouraged from displaying negative emotions such as anger, and encouraged instead to remain passive and to focus on others’ needs. These cultural norms are deeply embedded in society and
are often invisible because they are so pervasive. There is evidence, for example, that girls are much more adept at concealing their emotions than are boys. Saarni (1984) found that when an adult gave a child an undesirable present, boys expressed more anger and disappointment than girls did. However, when the adult was not present, girls were just as likely to display these negative emotions. This suggests that girls are adhering to the societal norm of not expressing anger and being considerate of other’s feelings. Conway (2005) proposes that socializing girls to inhibit their anger results in unhealthy coping strategies such as relational aggression and limits their development of optimal ways of regulating their anger.

Adolescent girls who identify with a more traditional feminine gender role have been shown to report greater use of relational aggression than those who identified with a nontraditional gender role (Crothers et al. 2005). This research indicates that socialization processes may be playing an important part in the use of relational aggression. The adolescent girls interviewed in this study reported that overt forms of aggression resulted in unfavourable outcomes such as peer and adult rejection. Apart from engaging in relational aggression to vent their feelings, the only other option, they stated, was to suppress their feelings, which many regarded as damaging to their psyches. The authors stated that this narrow range of behaviour options was due to rigid traditional feminine gender role stereotyping, which allow women to be angry while appearing “nice”.

The present experiment will further investigate this relationship between gender stereotyping and social aggression by assessing younger participants’ level of gender stereotyping and examining whether it is associated with their use of social aggression.
Saving Others' Feelings

Another reason why girls may feel uncomfortable about engaging in direct confrontation is for fear of appearing rude. That is, they may face not only societal pressure to be “nice”, but also self-imposed pressure. They may not want to hurt another person’s feelings, so it may be seen as a better option to simply keep quiet and then vent their anger or frustration later to someone else. It may also be simply an easier alternative to remain passive. Directly confronting someone may be an intimidating prospect and may in turn provoke further hostility. This is reflected in the finding that girls rate the use of relational aggression in a conflictual situation as more positive than overt aggression, and boys rate overt aggression as more positive than relational aggression (Crick & Werner, 1998). Girls may view the use of relational aggression as preferable to that of overt aggression, because it relieves them of the unpleasant task of conveying anger.

Closeness and Context of Friendships

Another contributing factor as to why girls prefer to use social aggression is because of the closeness of their social relationships. Some theorists have proposed that self-development in girls is more influenced by close and intimate relationships than is the self-development of boys (Cross & Madsen, 1997; Gilligan, Lyons, & Hammer, 1990). Two cultures theory (Maltz & Borker, 1982) proposes that girls and boys play differently and have different kinds of friendships, and these differences are consistent from the age of about 3 years until late adolescence. The theory emphasizes the intimacy and self-disclosure often evident in girls’ friendships, and describes girls’ friendships as more closed and exclusive than boys’ friendships. Girls often play in small or dyadic groups, where they focus on social relationships (for example, games such as ‘mother,
father, and baby'), whereas boys often play in bigger groups that engage in more fluid
types of play, such as action games (for example, ball games). There is evidence to
suggest that even as young as preschool age, girls prefer to interact on a one-on-one basis,
and boys prefer to interact in larger groups. Benenson (1993) [cited in Maccoby, (1998)]
found that when preschool children interacted either with a single puppet or a group of
puppets, girls reacted more positively when interacting with the single puppet, whereas
boys reacted more positively when interacting with a group of puppets.

The two cultures theory proposes that girls’ friendships emphasize closeness
more than that of boys, and that girls engage more in behaviours that encourage personal
relationships, such as avoidance of conflict, compromising, not expressing anger overtly,
and attempting to be aware of others feelings. In contrast, boys’ rough-and-tumble play
does not foster intimacy, but instead is focused more around dynamics of status and
dominance. Boys’ friendships seem to be fostered and maintained on the predicate that
they are interested in, and participate in, the same activities (Maccoby, 1998). They are
not as socially exclusive as girls’ groups/dyads, thus it is easier for boys to join new
friend groups.

Underwood (2003) postulates that this theory of different forms of interaction
between the genders fits well with the observation that girls typically engage in social
aggression more often than boys do. Because their friendships are more focused on
closeness, girls may be more likely to protect these highly valued relationships through
social mechanisms, as opposed to physical means that boys may be more likely to utilize.
Because girls typically disclose their feelings to their friends more often than boys do,
they may be more likely to engage in gossiping and friendship manipulation. This may be
a more effective means of vying for social inclusion and attempting to cement their role
in the dyad or group. For example, excluding and ignoring a peer may be more relevant to girls, because it is showing the excluded peer that they are not part of a valued social relationship. Because close relationships are not thought to be as important to boys, they may not regard these types of behaviour (e.g. social exclusion and ignoring) as a social shun as much as they would a behaviour that damaged their place in the dominance hierarchy, such as an act of physical, direct, or verbal aggression.

In line with this idea, Crick and Grotpeter (1995) proposed that when children choose to aggress, they do so in ways that are most effective to their peer group. That is, they will attempt to foil the goals that are most important to their gender. They evaluated this hypothesis by assessing a group of third- through sixth-grade children on relational aggression (a peer evaluation measure was used), overt aggression, social-psychological factors such as loneliness, social anxiety and avoidance, depression, and perception of peer relations. They found that girls were significantly more relationally aggressive than boys, and boys were significantly more overtly aggressive than girls. This was interpreted as support for the idea that girls will use relationally aggressive tactics (for example, purposely manipulating friendships, excluding others, etc) when attempting to harm another, because this will damage most what is important to girls: their close friendships. In contrast, boys will use overtly aggressive tactics to harm another, because this type of strategy will damage the victim's status in the dominance hierarchy. Caution must be exercised in accepting this conclusion at face value, however. These results are also consistent with the idea that children may be behaving in accordance with gender stereotypes. That is, females may be engaging in more relational aggression and males may be engaging in more physical aggression because these forms of aggression are more gender-normative and thus more socially acceptable.
A less extreme view than the two cultures theory on the issue of gender differences is the peer relations theory, which asserts that the friendship dynamics of the two sexes are not as diametrically opposed as two cultures theory claims. Peer relations researchers suggest that the differences between girls and boys friendships may be more subtle. The two sexes may not be fundamentally different, but the dissimilarities may in fact occur because of the different situations and contexts that they put themselves in. Peer relations theorists disagree that girls' friendships are more exclusive and intimate than boys, and that boys do not care as much about these close relationships. They propose that rather than girls' friendships being more intimate in general, girls put themselves more often in situations that foster intimacy, such as talking together in small groups, whereas boys simply do not choose to engage in these kinds of activities. If they are placed in different situations, however, peer relations research suggests that the differences between the two sexes' friendships would diminish. In one of the earliest studies conducted on indirect aggression, often cited as support for two cultures theory, Feshbach (1969) found that girls' friendships are more exclusive. That is, they will more often exclude a newcomer from their dyad than boys will. More recent research has challenged this finding by showing that girls' dyads were actually more likely than boys' dyads to welcome a newcomer (Borja-Alvarez, Zarbatany, & Pepper, 1991).

The different findings reported by the two schools of thought may in part be due to the different methodologies used. Two cultures researchers often use observational and ethnographical techniques, choosing to examine children in naturalistic settings where they are away from adult supervision. They focus on situations that may facilitate differences between the two genders, such as observing close conversations among small groups, and also watching large groups in playgrounds. This technique may lead them to
report large differences between genders because they are focusing on activities that will show the largest discrepancies. In contrast, peer relations researchers prefer to observe children in controlled environments, such as classrooms and laboratories. They often ask children to engage in the same play activity, so that they can record how boys and girls behave in the same context. This method of research is likely to facilitate smaller differences between the genders, because they are not engaging in the gender segregated and gender normative situations that children typically choose to.

Although two cultures theory methods may facilitate findings that support their theory, peer relations research may not be as relative to the real world. Placing children in artificial contexts does not allow for the examination of children in contexts that they naturally choose to place themselves in. Thus, peer relation experiments are not generating research on real differences in practice between the genders. It is interesting and important that children, given the chance, may behave in similar ways when placed in the same situations, as it helps social aggression theorists to understand situations in which this type of behaviour may be more easily facilitated, and to realize that these types of behaviour are relevant to boys as well as girls. It may be misleading, however, to conclude that the difference between the sexes is small.

It seems likely that differences in the use of social aggression may arise out of the different contexts that girls and boys choose to orient their friendships around. The differences may in fact derive from the way girls and boys are socialized to play. Girls are often encouraged to stay close to home and play in quiet and non-energetic play, and are more often told to ‘be careful’ and ‘look after yourself’. In contrast, boys’ risk-taking behaviour is generally tolerated and even encouraged by parents (Morrongiello & Dawber, 2000).
Girls are socialized from a young age (18 months) to talk about their emotions (Dunn, Bretherton, & Munn, 1987), which encourages their appreciation of other people's feelings. Fivush (1993; cited in Maccoby, 1998) found that parents talked more about emotions with their daughters than with their sons, and when discussing conflict situations with their children, they focused more on resolving the conflict and restoring harmony when talking to girls, and were more accepting of boys using anger and retaliation as a response to conflict. As well as parents talking less to boys about emotions, there have been findings that show that parents suppress the expression of their son's emotions (Block, 1978; cited in Maccoby, 1998). For example, boys are under more pressure than girls not to cry or display emotional outbursts, as they may be deemed weak or a "sissy". Consider, for example, one father's response to his toddler son falling and hurting himself: "Oh toughen up, quit your bellyaching." (Gable, Belsky, and Cmic, 1993, p32; cited in Maccoby, 1998).

Boys, on the other hand, are encouraged to play outside more often, take more risks, and be more independent (Brody, 1993). Fathers engage in three times as much rough play with sons than mothers do with daughters, and parents encourage children to play in "sex-appropriate" ways (Maccoby, Snow, & Jacklin, 1984; cited in Maccoby, 1998). Parents also tend to use more physical punishment with boys than with girls (Lytton & Romney, 1991).

The different styles that parents often take when raising boys and girls is likely to have an impact on the way children think about dealing with conflict with their peers. If parents discourage boys from talking about their feelings and treat them more roughly than girls through play and discipline, they will likely learn to resolve conflict in this way: to 'fight it out'. Similarly, if parents talk to girls about their feelings and emphasize
the avoidance of conflict, then girls will likely engage in a strategy of conflict resolution that attempts to save others' feelings and minimize direct conflict and confrontation. From a very young age, the two sexes are treated differently, and this probably has a profound effect on the situations that they feel more comfortable about engaging in. This leads to the conclusion that if girls were encouraged to play in different (perhaps less exclusive) ways, they may engage in less social aggression.

Underwood (2003) states, however, that it would be dangerous to accept the two cultures theory completely. The theory ignores the fluidity of behaviour in different contexts, and characterizes the genders as separate and distinct. This analysis leads to the conclusion that gender is fixed and immutable, and that girls are inherently more socially aggressive, and boys are inherently more overtly aggressive. This is too strong a conclusion to draw, considering the conflicting evidence generated by peer relations research.

**Anonymity of Social Aggression**

Another motivation for girls to vent their anger in socially aggressive ways is the anonymity of these behaviours. Non-confrontational aggression enables the perpetrator to conceal their identity, thereby minimizing the chance of retaliation and other negative consequences. In contrast, direct confrontation risks not only retaliation from the victim, but a tarnished reputation and possible punishment from authorities. Girls might also avoid expressing anger overtly because of the fear of being negatively evaluated. Engaging in social aggression makes it less likely that the victim will find out, thus they can voice their frustration without risking disapproval. If social aggression is due to a fear of negative evaluation, it would be expected that children who are more worried about
what their peers think of them would be more socially aggressive. Loukas et al. (2005) examined this idea by administering 10 to 14-year-olds with a questionnaire that measured the level of maternal psychological control, social evaluative anxiety (how concerned they are with being negatively evaluated by peers), overt aggression, and social aggression. They found that higher levels of social evaluative anxiety were associated with greater use of socially aggressive tactics, whereas lower levels of anxiety were associated with greater use of overtly aggressive tactics. This pattern of results was found in both boys and girls, and interestingly, there were no differences observed between girls and boys in the use of social aggression. Thus, adolescents who cared a lot about what others thought of them resorted to indirect behaviours to avoid the risk of being negatively evaluated, and those who did not care about what others thought of them used direct (physical and verbal) behaviours. The authors speculated that children who are afraid of being judged unfavourably might use socially aggressive methods (like rumour spreading, etc) against the people whose judgments they fear the most.

**Individual Causes for Social Aggression**

Aside from the social reasons as to why children may engage in relational aggression, there may be individual causes. Some of these might be characteristics of an individual’s situation, or it may involve individual temperament or personality, or it may be a combination of both.

**Parenting**

One situational factor that research has shown to contribute to relational aggression is family interactions. Children with warm, responsive, and caring parents
have been shown to be more socially competent and less aggressive with their peers (Kahen, Katz, & Gottman, 1994). In contrast, children with psychologically controlling parents (parents who use relationally aggressive tactics with their children, such as love withdrawal and guilt induction to manipulate the child into behaving in a certain way, Barber, 1996) exhibit more overt and relational aggression than their peers (Grotpeter, 1997). Similar to these results found in Western (primarily North American) children, Russian children with more coercive mothers and less responsive fathers exhibited higher levels of relational aggression. Marital conflict further inflated this relationship (Hart et al., 1998). This finding suggests that negative family environment contributes to relational aggression in children, regardless of culture.

**Social Information Processing Strategies**

Certain psychological characteristics of children have also been examined in an attempt to uncover the causes of social aggression. For example, the social information processing strategies of aggressive children are different to those of non-aggressive children. Social information processing involves encoding and interpretation of social cues, and formulating a response to those cues (Crick & Dodge, 1994). Aggressive children exhibit deficiencies in social information processing. They have been shown to interpret ambiguous social cues from their peers as involving hostile intent, which is referred to as a hostile attribution bias. Social information processing theory predicts that children with hostile attribution biases will react aggressively to a provocation by a peer (Crick & Dodge, 1994). Both physically and relationally aggressive children have been shown to display hostile attribution biases, but interestingly, only for provocations specific to the type of aggression they exhibit (Crick, Grotpeter, & Bigbee, 2002). That is,
relationally aggressive children attribute hostile intent of a peer only in an ambiguous relationally aggressive situation (for example, not being invited to a birthday party), and physically aggressive children only attribute hostile intent in an ambiguous physically aggressive situation (for example, a peer breaks the child's new radio while the participant is out of the room). Crick, Grotpeter and Bigbee (2002) also found that aggressive children's responses were specific to the type of aggression they displayed, that is, relationally aggressive children said they would feel more upset and distressed at a relationally aggressive slight, and physically aggressive children said they would be more upset about a physically aggressive slight. According to the social information processing theory, these negative feelings would be likely to contribute to an aggressive reaction. These findings demonstrate that aggressive children are engaging in more pathological thought processes than non-aggressive children, and are acting upon these biases in an aggressive way.

Morretti et al. (2001) propose that hostile attribution biases stem from a negative self-schema. If children or adolescents view themselves in a negative way, they are likely to perceive that they are incompetent in social relationships, and thus be vigilant and sensitive to cues that may confirm this view of themselves. Because the individual feels threatened and believes that others are hostile and rejecting of them, they may engage in defensive and aggressive behaviour. In support of this idea, they found that girls who had been referred for aggressive or delinquent behaviour were more likely to exhibit relational aggression if they had a negative self-representation and believed that their peers held the same view of them (for example, these girls often described themselves as 'stupid, mean, bitchy, “slutty”, fat, and ugly' [p120], and believed that others viewed them in the same way). The authors highlighted the role that a negative self-
representation played in social aggression, stating that it is plausible that it increases vigilance to cues of rejection and attributions of hostility and threat. Interestingly, however, the opposite pattern was observed in boys. The more negatively they believed their peers viewed them as, the less they engaged in social aggression. Instead, these boys were engaging in higher levels of overt aggression than average in this sample of adolescents referred for aggressive and delinquent behaviour. The authors speculated that these boys may avoid using social aggression because it is gender atypical, and would therefore damage their social standing. Thus, boys who believe that their peers already view them negatively would be unlikely to engage in any type of behaviour that may increase this perceived social rejection.

Because a negative self-representation is strongly correlated with aggressive behaviour, it is proposed that future interventions with aggressive youth should target self-esteem issues and negative beliefs. The authors suggest introducing positive social experiences, so as to increase the youth’s positive self-schema through broadening their experiences from negative interactions. The authors argue that this approach may prove more effective than interventions based on control and punitive restrictions, because it addresses the root of the problem: adolescents' self-representations.

In direct contrast to the long-held view that negative self-representations are unhealthy and lead to aggression, Baumeister, Smart, and Boden (1996) proposed that positive self-perceptions are what cause aggression. According to this theory, those with extremely high positive self-representations will become angry or hostile when presented with challenges to this self-view. If presented with negative social feedback, they will reject it so as to maintain their positive self-perception, leading to feelings of resentment and anger towards the source of the feedback. David and Kistner (2000) tested this theory
by asking third to fifth graders to rate their level of peer acceptance. Children were also asked to rate their peers on measures of overt and relational aggression. In support of the Baumeister et al. theory, they found that children who overestimated their peer acceptance had higher ratings of aggressiveness, and this relationship increased linearly.

How are these two contrasting findings reconcilable? It may be that children on either end of the self-representation scale exhibit aggression. That is, those with extremely positive and extremely negative self-representations both exhibit high levels of aggression, but for different reasons.

Empathy

Another psychological factor that has been implicated in the study of social aggression in children is empathy. Empathy can be defined as being made up of two factors: a cognitive component and an affective component. The cognitive component can be referred to as ‘perspective taking’, and involves an ability to be able to understand the point of view of others. The affective component can be referred to as ‘empathic concern’, and involves feeling sympathy or concern for others in an unfortunate position (Richardson, Hammock, Smith, Gardner, & Signo, 1994).

Richardson et al. (1994) investigated the role of both components of empathy in the display of aggression. They found that although both components were related to aggression, perspective taking had a stronger relationship with this behaviour. Under conditions of being provoked into conflict, participants who scored higher on levels of perspective taking reacted less aggressively than those who scored lower on perspective taking. In addition, situationally inducing perspective taking in the participants led them to behave less aggressively. Subjects who scored highly on measures of empathic concern
reported that they used more constructive and less destructive resolutions to conflict than those who scored low on this construct, but this component of empathy was not as strongly or as consistently associated with lower levels of aggression as perspective taking was. The authors concluded that it is not simply caring or having sympathy for another person that inhibits the display of aggression, but that the ability to take the perspective of that person is the main inhibitor of this behaviour. A study measuring empathy in 19-to-25-year-old college students also supported this conclusion. Loudin, Loukas, and Robinson (2003) found that students with higher levels of perspective taking reported lower levels of relational aggression than their peers. In a similarly less strong relationship, lower levels of empathic concern were related to higher levels of relational aggression in males only.

The hypothesized relationship between empathy and aggression is further supported by the results of a meta-analysis conducted by Miller and Eisenberg (1998), where a significant negative relationship was found between empathy and aggression. This relationship appears to hold true for many types of aggression. Kaukiainen et al. (1999) reported that a lower level of empathy is related to the display of indirect aggression in a sample of 526 Finnish schoolchildren, and Bjorkqvist, Osterman, and Kaukiainen (2000) found that empathy clearly mitigated physical, verbal, and indirect aggression when social intelligence was partialed out.

In consideration of the evidence that empathy plays a significant role in the display of aggressive behaviour, the present experiment sought to further investigate this relationship in a sample of New Zealand school children.
Social and Behavioural Problems Associated with Social Aggression

Previous research has shown that aggressive children are at a much higher risk for social and behavioural problems than are non-aggressive children. Most studies, however, have focused on overtly aggressive behaviour, such as hitting, pushing, and verbal abuse. Because these types of behaviour are more typical among boys, the majority of research has demonstrated the link between overt aggression and behavioural problems in boys, but has neglected investigation into whether types of aggression more typically found in girls leads to behavioural and/or social problems.

Crick & Grotpeter (1995) investigated this idea in a sample of third- through sixth-grade children. They presented them with several measures that have been shown to be predictive of socio-emotional difficulties such as depression, loneliness, and social anxiety (Parker & Asher, 1987). Participants were also asked to nominate up to three peers that were representative of overt and relational aggression items (for example, ‘hits, pushes others’ for overt aggression, and ‘tells friends they will stop liking them unless friends do what they say’ for relational aggression). Results showed that, consistent with previous research with overtly aggressive children (Parker & Asher, 1987), relationally aggressive children also exhibit social problems. Relationally aggressive children were more disliked and more rejected than other children. In addition, relationally aggressive girls were significantly lonelier and perceived themselves to be more rejected and isolated than other children, and relationally aggressive children were significantly more depressed than other children.

Crick and Grotpeter (1995) provided the first evidence that relationally aggressive children are at a higher risk for social maladjustment. As the authors noted, however, it is unclear as the interpretation of causality. That is, the findings are consistent with the
notion that relationally aggressive children are rejected because of their relationally aggressive behaviour (i.e. relational aggression causes rejection), but are also consistent with the notion that children who are disliked may retaliate with relationally aggressive tactics.

Crick (1996) addressed this problem in a study conducted to examine whether children’s relational aggression predicted social maladjustment at a later time. She noted that Crick and Grotpeter (1995) provided evidence of an association between relational aggression and concurrent social maladjustment, but that it is important to determine whether relational aggression is a risk factor for future social maladjustment, or just a retaliatory strategy for children who are already socially maladjusted. A multi-informant approach was utilized, such that teachers and peers rated children’s level of aggression, prosocial behaviour, and social adjustment at three intervals throughout the year. It was found that relational aggression was stable over the course of the year, indicating that, without intervention, relationally aggressive children may remain aggressive over time. Most importantly, the results showed that girls who were relationally aggressive became more rejected by their peers over the course of the year, demonstrating that relational aggression is associated with future social maladjustment in females, but interestingly, not in males. This finding indicates that relational aggression may be an important construct for researchers to include when examining girls’ mental health and social problems that may lead to unhappiness or maladjustment. In addition, it was found that low levels of prosocial behaviour combined with high levels of aggressiveness were the highest predictor of social rejection. This finding may be helpful when considering designing interventions for socially rejected children. It is important to concentrate not
only on remedying the aggressive behaviours, but also on encouraging positive behaviours.

A recent study conducted by Marsee, Silverthorn, and Frick (2005) investigated whether psychopathic traits were associated with aggression and delinquency. They administered fifth through ninth grade boys and girls measures of social behaviour, antisocial behaviour, and delinquency. They used self-report and teacher-report to determine rates of psychopathic traits in students. They found that psychopathic traits were related to aggression and delinquency, and interestingly, they were related more strongly to overt aggression in boys and relational aggression in girls.

Another antisocial behaviour, lying, has been shown to be associated with relational aggression. Ostrov (2006) reasoned that it was likely that relational aggression would be correlated with deception, considering that several relationally aggressive behaviours such as spreading rumours and manipulating friendships probably rely on being able to deceive others. This was the first study to demonstrate that relational aggression is associated with deception, even in children as young as 3 years of age. The directionality of these behaviours is an interesting issue. Does the use of some relationally aggressive behaviours (such as gossiping and ignoring) promote lying, or do children who already lie learn that they can manipulate people in other (relationally aggressive) ways?

These studies provide evidence that relationally aggressive children suffer social adjustment problems, but are confined largely to the peer group context. It has been suggested, however, that relationally aggressive children may behave differently within a dyadic friendship context. That is, perhaps relationally aggressive children do not carry over their aggressive behaviour into their close friendships, but instead use these
friendships as a source of support, as non-aggressive children typically do (Grotpeter & Crick, 1996). Relational aggression was assessed with a peer nomination measure, and the quality of children’s friendships was assessed by self-report. Relationally aggressive children’s friendships did not differ from non-aggressive children’s friendships on many measures, such as validation, caring, companionship and recreation. These friendships were also characterized, however, by high levels of intimacy, relational aggression, exclusivity, conflict, betrayal, and jealousy. These findings demonstrate that the aggressive behaviour of relationally aggressive children observed in the peer group context are being continued in the context of the child’s dyadic friendships. In contrast to the idea of relationally aggressive children not using aggression in close friendships, it appears that the friends of these children are at risk of being the victims of relational aggression.

A more recent study (Rose, Swenson, & Carlson, 2004) investigated further the role of relational aggression in dyadic friendships. Third to ninth grade children (approximately 8 – 14 years) nominated peers that they liked and disliked, and also rated their best friend on friendship quality. The pattern of results showed two groups of relationally aggressive children – those that were popular and those that were disliked. Interestingly, friendship quality differed markedly between the two groups. Relationally aggressive children who were highly disliked were found to have high levels of conflict within their friendships, whereas relationally aggressive popular children did not have conflictual friendships. In fact, relationally aggressive youth who were perceived as popular were found to have high levels of positive qualities in their friendships. The authors speculated that children who are disliked and relationally aggressive may have poor social skills and be generalizing their aggressive behaviour to their close friendships.
as well as their peer groups. In contrast, those who are popular and relationally aggressive may be particularly socially skilled and be keeping their aggression separate from their close friendships. These socially savvy youth may be adept at manipulating relationships amongst peers whilst maintaining high levels of friendship quality in their own close friendships. This may be achieved through the high levels of intimacy noted in relationally aggressive children’s friendships (Grotpeter & Crick, 1996), whereby the friendship serves as a secure base for these youth to engage in relational aggression towards others. This idea is also supported by Rose et al.’s (2004) finding that the friendship partners of relationally aggressive children are similar; disliked relationally aggressive children are friends with other disliked relationally aggressive children, and popular relationally aggressive children are friends with other popular relationally aggressive children. This suggests that relationally aggressive youth are engaging in relational aggression together with their close friend against other individuals. It has also been found that, for girls only, relational aggression within a friendship breeds further relational aggression. That is, girls who have highly relationally aggressive friends become increasingly relationally aggressive over time, indicating that the initially relationally aggressive friend is drawing her partner into this pattern of behaviour (Werner & Crick, 2004).

Rose, Swenson, and Waller (2004) investigated further the relationship between relational aggression and popularity. They noted that a limitation of previous research is that it has demonstrated a link between relational aggression and perceived popularity, but has not examined the directionality of these constructs. In other words, does relational aggression lead to increased popularity, or does being popular facilitate relational aggression? A peer nomination scale was used with third, fifth, seventh, and ninth graders.
whereby they rated their classmates on measures of popularity and aggression. To assess the temporal ordering of these constructs, they underwent the same procedure 6 months later. It was found that the association between relational aggression and perceived popularity was bi-directional in older girls. That is, girls who were initially relationally aggressive increased in popularity, and as their popularity increased, so did their level of relational aggression. The authors speculated that as these girls became more popular, they became more confident in their social power, and thus engaged in more relationally aggressive acts to heighten their status by excluding and ignoring those of lower status. Also, others may condone their aggression because they are too scared to give them negative feedback. Interestingly, this association was not found for boys. It was proposed that relational aggression did not lead to increased popularity in boys because it is not gender normative, as it is in girls.

Consistent with earlier findings that younger relationally aggressive children are disliked and rejected (Crick & Grotpeter, 1995), Rose et al. (2004) found that the association between perceived popularity and relational aggression was apparent in adolescents but not younger children. It is possible that as children become more socially skilled with age, they learn how to manipulate relationships to their advantage. Thus, children who are relationally aggressive at a young age may be engaging in crude forms of relational aggression (for example, “you can’t come to my birthday party”) that do not result in increased levels of popularity. In contrast, older relationally aggressive children/adolescents may have a more thorough understanding of social hierarchies and how to manipulate them, thus may be engaging in more subtle and covert means of aggression, which may be more effective because they cannot be traced back to them (for example, spreading rumours). In effect, the relational aggression used by younger children may
reflect directly on their character because it is obvious to the victim that they are being excluded by the perpetrator. In contrast, the subtle forms of relational aggression that may be employed by older children may not reflect on their character, because they can remain anonymous to the victim of their aggression.

Rose et al. (2004) propose that the ability to make relationally aggressive behaviours work to the adolescent’s advantage (that is, increase their social standing through manipulating others around them) requires advanced interpersonal skills that develop with age. Cillessen and Mayeux (2004) support this contention, stating that relational aggression is associated with social skillfulness and results in favourable outcomes for the individual with regards to social prominence. This notion is in contrast to the idea that relationally aggressive individuals are socially maladjusted (Crick & Grotpeter, 1995; Crick, 1996). Cillessen and Mayeux (2004) noted that relational aggression has been associated with peer rejection in past research, thus they clarified the definition of popularity to distinguish between sociometric and perceived popularity. Sociometric popularity was defined as being well liked by others, and perceived popularity was defined as someone who is part of the ‘popular crowd’ but not necessarily well liked. In a longitudinal study conducted over 5 years, they found that relational aggression was associated with perceived popularity but not sociometric popularity. That is, relationally aggressive individuals are not well liked by the majority of their peers, but have high social prominence. They proposed that relational aggression may be used in more sophisticated ways over time, due to increasing social cognitive development: “It appears that some savvy adolescents are using maladaptive behaviors in adaptive ways” (p160).
Xie, Swift, Cairns, and Cairns (2002) reported that social aggression was not predictive of developmental maladjustment in a sample of 7th graders. On the contrary, they were rated highly on measures of 'Olympian' ('good at sports', 'wins', 'good-looking'), 'affiliation' ('smiles a lot', 'friendly'), and popularity. They proposed that the majority of socially aggressive children and adolescents are not socially incompetent, and that social aggression is just a normal part of development. Xie, Cairns and Cairns (2002) reported similar results. In addition, they found that adolescents who engaged in social aggression were more likely to have high levels of social network centrality. The authors stated that this finding is not surprising considering that to be effective, social aggression draws on the involvement of other people, thus those who are embedded in social networks will be more successful at engaging in social aggression. Also, those adolescents who are central to a social group may be more likely to be the targets of social aggression because of jealousy and competition from others, thus they may be retaliating in some cases. They will also likely be involved in dictating the dynamics of the social group, that is, who is allowed into the group and who may be dispelled, which is a process that probably draws heavily on social aggression. The authors propose that social aggression is a completely different construct to physical aggression as they utilize different social processes and have different results for the perpetrators. Physical aggression was not correlated with high social network centrality. It was related to future social maladjustment, whereas social aggression was not.

Further support for the view that social aggression is a normal part of development is the observation that many adults engage in non-confrontational aggression as opposed to physical aggression. For example, in a study conducted in the workplace, it was found that physical aggression was very uncommon, whereas indirect
aggression was used widely by both men and women (Kaukiainen, Salmivalli, Bjorkqvist, Osterman, Lahtinen, Kostamo, & Lagerspetz, 2001). Pulkkinen (1992) conducted a study with 8-year-old girls, and found that physical aggression was associated with later low educational attainment and early motherhood, whereas a subtle form of aggression (facial) was associated with later higher educational achievement. The finding that friendships of relationally aggressive children are characterized by high levels of intimacy (Grotspeter & Crick, 1996) also suggests that these children are not socially maladjusted.

Theory of Mind

There is evidence that relationally aggressive girls have an advanced understanding of the social world even at the pre-school level. Hawley (2003) found that teacher-rated relational aggression was related to moral maturity. The children were presented with vignettes such as, “Pretend you took the candy from this child”, (a) “Is it right or wrong to take the candy?” and (b) “Why?” (p221). Relationally aggressive girls scored higher on levels of moral maturity. The author speculated that this advanced moral maturity may indicate that these children have an understanding of social interaction, and thus may engage in relational aggression as a strategy for eliminating competitors for a friendship.

Tentative support for the idea that relationally aggressive children understand others is provided in a study by Bonica et al., (2003). They found that relational aggression was related to language development in a sample of preschoolers. Theory of mind, or “mind reading”, (the ability to attribute mental states such as emotions, beliefs, intentions, and desires to others, and to use this ability to predict and explain behaviour
(Baron-Cohen, 1994) is associated with language development and has also been found to facilitate relational aggression (Aстington & Jenkins, 1999). It is therefore plausible that relational aggression is related to an advanced understanding of others and the social world. This makes sense, considering that socially aggressive behaviours such as manipulating relationships and rumour spreading would likely involve understanding of others' mental states and beliefs, and therefore, a good level of theory of mind (ToM). It has been shown that 7- to 10-year-old ringleader bullies had higher ToM scores than their peers (Sutton, Smith, & Swettenham, 1999). The authors speculated that the ability to understand others' emotions might be very adaptive in bullies' goal of hurting others, as it enables them to tease somebody effectively. It may be then, that perpetrators of aggression, be it social or physical, have a greater understanding of others' feelings, and are using this knowledge in a deviant way, to gain power and higher status over their victims.

Social intelligence is the ability to recognize the desires, moods, and motives of others (Bjorkqvist, Osterman, & Kaukiainen, 2000), and as such, can be thought of as similar to ToM. In a study designed to measure social intelligence, adolescents rated their peers on items such as, 'is able to guess the feelings of others, also when they do not want to show them', 'notices easily if others lie', and 'is able to get her/his wishes carried out'. High levels of indirect aggression were shown to be associated with high levels of social intelligence, while overt aggression showed no association with this construct (Kaukiainen, Bjorkqvist, Lagerspetz, Osterman, Salmivalli, Rothberg, & Ahlbom, 1999). Combined, these findings indicate that relationally aggressive children may have greater social understanding, or ToM. The present study therefore utilized a measure of ToM to
examine whether higher ToM, or social intelligence, is associated with a greater use of social and/or physical aggression.

In contrast to the idea that social aggression is maladaptive, it may actually serve important and even positive developmental functions, such as testing out boundaries with the self and others, and it may play an important role in developing self-identity. Social aggression perhaps also serves a positive purpose in social groups. Gossip can help facilitate relationship building and group bonding, reinforce shared values and help with conflict resolution. Through talking about others’ behaviour, children can learn what are considered acceptable and unacceptable. Venting one’s emotions with another close friend may help diffuse a situation that may have resulted in unnecessary conflict that would damage the friendship. This disclosure of personal thoughts or emotions may in fact strengthen the friendship with the confidante, as they may feel valued because they were confided in. Children or young people engaging in this sort of venting may be unintentionally using social aggression, but these social skills may be refined and may in turn develop into social aggression.

The Impact of Victimization Through Social Aggression

Although it is still controversial as to whether socially aggressive children are maladjusted, it is obvious that the impact of their behaviour on others, especially girls, is negative. For example, Paquette and Underwood (1999) found in a sample of seventh and eighth graders (mean age = 13.8 years) that although boys and girls reported being the victims of social aggression equally as often, girls seemed to be more concerned about it than were boys. Girls reported that when they were the victims of social aggression they felt ‘sadder, more surprised, and worse about themselves than did boys.’ (p261). Girls’
self-perceptions were strongly linked to their experiences of social aggression victimization: ‘the more frequently a girl reported experiencing social aggression, the lower were her self-perceptions of athletic competence, physical appearance, romantic appeal, behavioural conduct, close friendships, and most strikingly, global self-worth.’ (p262). Experiencing physical aggression was not linked to self-perception, however. Girls also did not report feeling worse than boys after experiencing physical aggression, demonstrating that girls were not simply more sensitive than boys to all forms of aggression.

Researchers have also found that being the victim of social aggression may cause damage that persists throughout childhood, leading to further victimization (Kochenderfer & Ladd, 1996a). Crick and Grotpeter (1996) found that children who experienced relational aggression victimization tended to continue to be victims throughout grade school. When the effects of overt aggression were eliminated, it was found that relational aggression predicted loneliness, depression, social anxiety, and social avoidance. Prinstein, Boergers, and Vemberg (2001) also reported higher levels of loneliness, higher levels of depression symptoms, and lower global self-worth in relationally victimized boys and girls.

Roecker Phelps (2001) conducted a study into children’s coping strategies for victimization. She reported that children who were targets of social aggression often internalized the distress rather than actively seeking help. This type of strategy may lead children to believe that because they are being targeted, there is something wrong with them, rather than viewing it as the aggressor’s problem. This may result in a negative self-perception. Unfortunately, this type of coping strategy has been shown to be linked to further victimization. This means that not only will the child likely experience
continuing victimization, they will also be less likely to receive help from anyone. Because social aggression is hard for an outside observer to pick up, if the child does not inform anyone of what is going on, it is unlikely a parent or teacher will intervene.

As it has become increasingly apparent that children are hurt by social aggression, and that it may create lasting psychological damage, researchers have attempted to develop interventions that reduce the incidence of this behaviour. Young, Boye, and Nelson (2006) state that interventions that focus only on the socially aggressive individual are likely to fail, considering that social aggression involves group dynamics. They advise that creating an intervention that focuses on creating a school climate that encourages inclusion, tolerance, respect, and other positive and prosocial behaviours may help to reduce social aggression. If children are taught empathy for others and how socially aggressive behaviours may hurt their peers, they may be less likely to engage in these sorts of behaviours (e.g. excluding others and talking behind others’ backs). At present in the school setting, physically aggressive behaviours are highlighted as ‘bad’ ways of behaving towards others, and children are encouraged to tell someone if they are being bullied. But social aggression is not as widely known or talked about as physical aggression, and as a consequence parents and teachers may not be aware their children may be involved in this sort of behaviour, or may be the victim of it. It is therefore important to get it out in the open so that children are made aware of what social aggression is and are made to feel that it acceptable to talk about it and ask for help if they are being victimized.

Twemlow, Fonagy, and Sacco (2003) assert that for an intervention to be successful, both the parents and the school need to be involved. They need to deal with social aggression immediately as it appears, in a nonblaming way with a focus on the
group rather than the individual. Children should be taught tactics for how to solve conflicts with their peers without resorting to relationally aggressive strategies such as excluding others, gossiping, and damaging the reputation of other students (Merrell, Buchanan, & Tran, 2006).

Social Aggression in Other Countries

The vast majority of research into social aggression has been conducted in North America. Because this is a very individualistic culture, and doubtless has other factors that differentiate it from other cultures, it is important to find out whether social aggression is as prevalent in other countries as it is in North America. Research is needed to establish firstly, whether social aggression occurs as often in other countries as it does in America, and secondly, whether girls engage in social aggression more than boys do in other countries, which is the pattern commonly found in America.

Preliminary research has been conducted in a few other countries, and so far the findings have been mixed as to whether there are gender differences in the occurrence of social aggression. Girls in Finland, Italy, Poland, and Israel aged between 8 and 15 years of age were found to engage in more indirect aggression than boys in two studies conducted (Österman, Björkqvist, Lagerspetz, Kaukiainen, Huesmann, & Fraczek, 1994; Österman, Björkqvist, Lagerspetz, Kaukiainen, Landau, Fraczek, & Caprara, 1998). Similar results were reported in Chinese pre-schoolers, where their teachers rated girls as higher in relational aggression than boys (Hart, Yang, Nelson, & Robinson, 2001). French, Jansen, and Pidada (2002) examined whether children from two cultures that differ considerably in terms of culture, Indonesia and the United States, would show differences in social aggression. Indonesia has a strong collectivist culture, where face-to-
face confrontation is frowned upon; therefore indirect aggression would be expected to flourish. Girls in both countries were found to show more relational aggression than boys. The authors interpreted this finding as evidence for the universality of gender differences in social aggression – that girls the world over display more social aggression than boys.

This contention is challenged however, by studies conducted in different countries that found otherwise. No difference was found in the incidence of relational aggression between preschool girls and boys in Russia (Hart, Nelson, Robinson, Olsen, & McNeill-y-Choque, 1998). Tomada and Schneider (1997) examined gender differences in social aggression between Italy and the United States. It was predicted that gender differences in social aggression would be even stronger in Italy than in the United States, due to the strict societal restrictions on women expressing anger overtly, making it more acceptable for them to express themselves in a more covert way. In fact, the opposite was observed. It was found that Italian boys displayed more social as well as overt aggression than girls, which challenges the contention that the higher incidence of social aggression among girls is universal.

Although this research is valuable in providing preliminary evidence on the differences in aggressive tactics used by girls and boys the world over, it needs to be expanded upon to allow researchers to understand more fully the patterns of behaviour that manifest. These studies often compare within societies but not between – more research needs to be done comparing the incidence of social aggression in one country as compared to the vast majority of research that has been conducted in the United States to determine whether this is the pattern most commonly found, or whether it is in fact unique to the United States (or North America mainly) as a culture. Research of this kind has not been carried out in New Zealand to date. The current research is intended to
provide a preliminary examination of whether social aggression exists in this country, and if so, whether the same gender differences can be observed as those found in the United States. Another important aspect of this research is to investigate which factors may contribute or coincide with social aggression – namely, a lack of empathy and a lack of Theory of Mind, as well as high levels of gender stereotyping, and also to establish children’s attitudes towards others’ aggression.

The present experiment attempted to investigate the prevalence of social, physical, and verbal aggression in a sample of New Zealand children. This was the first study conducted in New Zealand to examine the incidence of social aggression in children, therefore it will not only expand the previous research in this area, but also provide initial information about whether this behaviour exists, and if so, how common it is in New Zealand.

Children were asked to rate how often they, and their peers, performed aggressive and pro-social acts. To investigate factors that may be associated with aggression, children completed questionnaires about their empathy levels, gender stereotyping, facial emotional recognition, their understanding of social faux pas, and their attitudes towards aggression.
Method

Participants

The participants were 48 students from two Dunedin primary schools (28 females, 20 males), ranging in age from 7 to 11 years (mean age = 106 months). Decile ratings of schools ranged between 9 and 10. Parents of children participating received and returned parental consent forms outlining the details of the study (see Appendix A), and children consented to participate by signing a child-friendly consent form (see Appendix B).

Measures

Participants completed 6 tasks. Four of these were administered by a laptop computer and two were administered by a female researcher. The computer tasks measured gender stereotypes, facial emotional recognition, empathy, and peer ratings of social behaviour. The remaining two tasks measured understanding of social faux pas and attitudes about aggression.

Gender Stereotype Questionnaire – This questionnaire presented participants with 26 statements to assess their attitudes towards traditional gender roles and gender equality. Participants indicated how much they agreed or disagreed with each statement by choosing from the following five options: 'strongly disagree', 'somewhat agree', 'neither disagree nor agree', 'somewhat agree', or 'strongly agree'. Selections were made with a click of the computer mouse. Statements were selected from two previous measures of gender stereotyping (Vaillancourt & Leaper, 1997; Prasad & Baron, 1996). Example
statements from the questionnaire include ‘Taking care of the children should be divided equally between the mum and the dad’, ‘the wife should do most of the childcare’, ‘it should be equally acceptable for girls and boys to play rough sports like rugby’ (for the full list of statements see Appendix C). Answers were scored using reverse coding so that a higher score reflected stronger agreement with stereotyped gender roles. Total scores were calculated by summing individual answers. The lowest possible score was 26 and the highest possible score was 130.

Children’s Eyes Task – This task was developed by Baron-Cohen, Wheelwright, Spong, Scahill, and Lawson (2001) as a measure of one form of theory of mind. The Eyes Task assesses how accurately individuals can identify the mental states of others after viewing only the eyes region of a face. Participants were presented with a picture of the eye region of a face, with four emotion or mental state labels presented around the outside of the picture (see Figure 1). Participants were instructed to look at the eyes and then select which of the four terms best describes what the person is thinking or feeling. Example terms included jealous, scared, relaxed, hate, surprised, sad, friendly, excited, etc. Participants used the computer mouse to ‘click’ on their choice. Participants were presented with 20 pictures, plus one practice picture at the beginning of the task. All answers were recorded, and the number of correct answers was calculated for each participant.
Bryant's Empathy Index – Participants were presented with 22 statements designed to assess their level of empathy, for example ‘It makes me sad to see a girl who can’t find anyone to play with’, ‘Kids who have no friends probably don’t want any’, ‘I get upset when I see a boy being hurt’ (For a full list of the statements see Appendix D). Participants had to indicate how much they agreed with each statement using the computer mouse. As with the gender stereotype questionnaire, this was done by choosing from the options ‘strongly disagree’, ‘somewhat agree’, neither disagree nor agree’, somewhat agree’, or ‘strongly agree’. Answers were scored using reverse coding so that a higher score reflected stronger agreement with empathetic answers. Total scores were calculated by summing individual answers. The lowest possible score was 22 and the highest possible score was 88.
**Peer ratings** – This task was designed to assess children’s social behaviour as perceived by their peers. Children were assigned to a group depending on which class they were from (e.g. children from the first class interviewed were in Group 1). All children within that group were first presented with 2 practice questions. The researcher demonstrated to them how to use the computer mouse to click on the visual rating scale ranging from ‘not at all’ to ‘quite a lot’ to indicate how often a certain person performed a certain behaviour. They then rated each other and themselves on how well they knew the person, and how often they performed three socially aggressive behaviours (i.e., rolls eyes or gives a mean look, ignores or excludes others, and gossips or spreads rumours), two physically and verbally aggressive behaviours (i.e., hits/shoves/pushes, and yells or calls names), and one prosocial behaviour (i.e., helps others).

**Faux Pas** – This task was adapted from the original task developed by Baron-Cohen, O’Riordan, Stone, Jones, and Plaisted (1999) as a measure of older children’s theory of mind. The ability to detect a social faux pas indicates that the child has theory of mind because they are able to understand that something has been said that should not have been, for example, the speaker may have said something that may have unintentionally hurt the listener’s feelings (e.g. saying something about someone and not realizing that that person was listening). Detecting a faux pas also involves recognizing that there may be a difference between a speaker’s knowledge state and that of their listener, and understanding the emotional impact of a statement on the listener (e.g. ‘his feelings will be hurt’) (Baron-Cohen et al., 1999).

The researcher presented children with 4 scenarios that were accompanied by pictures. Each story was read aloud to a child. For example,
Joanne and Peter were sitting at the front of the school bus. Joanne said, "I can't believe that boy Mike made us lose our game today. He is so bad at sports." The school bus stopped to let them off and they turned around to leave the bus. Mike was sitting in the seat behind them. Peter said, "Oh hi Mike, see you at school tomorrow."

After each scenario had been presented, the experimenter asked the children 5 questions about it. The questions were,

1. ‘In the story did someone say something that they should not have said?’ – this question was designed to identify whether or not the child understood that someone had committed a faux pas.

2. ‘What did they say that they should not have said?’- this question was designed to identify whether the child understood what the faux pas was.

3. ‘Why do you think they said it?’ - this question was designed to ask the child to provide a justification for the faux pas.

4. A question asking the child about the social faux pas, e.g. ‘What did Joanne say about Mike?’

5. A question asking the child whether or not the faux pas was intentional, e.g. ‘Did Joanne know that Mike was sitting in the seat behind them?’

Children’s answers were recorded on audio tapes.

*Attitudes towards others’ Aggression Questionnaire –* This task was developed by the researchers, and was designed to assess children’s reactions to social and physical aggression. The experimenter read aloud 8 scenarios to the children. Two of these were
social aggression scenarios that were intended to hurt another child (intentional social aggression, e.g. ‘You walk up to a group of kids and say “hi”. They say, “Don’t talk to us”, and walk off’). Two were social aggression scenarios that were intended more to express frustration about another peers behaviour and may have had the purpose of increasing group solidarity (social solidarity aggression, e.g. ‘You walk by a group of other kids. As you walk by, someone in the group rolls their eyes and all the others laugh’). Four were physical aggression scenarios (e.g. ‘You are playing on the classroom computer and a kid comes up and pushes you off your chair so you fall, and says, “I’m playing on this now”’). For a full list of the scenarios see Appendix E. After each scenario was presented children were asked 4 questions about it:

1. ‘What do you think of the kid(s) who did this?’
2. ‘How would this make you feel if this happened to you?’
3. ‘On a scale of 1 to 5, how bad would you feel if this happened to you? Not bad at all – Really bad.’
4. ‘What would you do if this happened to you?’

Because perceptions of aggression might depend on the gender of the aggressor as well as the perceiver, each scenario was written with either a male character or a female character. There were two versions of the questionnaire: in Version 1 the perpetrators of social aggression were female and the perpetrators of physical aggression were male, and in Version 2 the perpetrators of social aggression were male and the perpetrators of physical aggression were female.

Half of all female participants were presented with Version 1 and the other half were presented with Version 2, and half of all male participants were presented with Version 1.
and the other half were presented with Version 2. Children’s answers were recorded on audio tapes.

**Procedure**

Children were seen individually in a quiet room and were given child-friendly consent forms which were explained to them. Before proceeding with the experiment, each child signed the consent form to indicate that they had understood the conditions of the experiment and that they were able to leave at any time if they wished. All the children in one class were presented with the tasks in the same order, except the attitudes towards others’ aggression questionnaire, where children were presented with either Version 1 or Version 2 according to their sex: i.e. every second girl was presented with Version 2 and every second boy was presented with Version 2. After they had completed all 7 tasks they were able to choose a reward from an array of small toys, erasers, pencils, paper, and stickers.
Results

Aggressive Behaviours

To assess whether the incidence of aggression varied as a function of gender, mean peer ratings for specific acts of aggression were calculated as well as composite ratings for social aggression and physical/verbal aggression. These are presented in Table 1. The composite of ‘Social Aggression’ was calculated as the mean of peer ratings of ‘spread rumours or gossiped’, ‘rolled eyes or gave a mean look’, and ‘ignored or excluded others’. The composite of ‘Physical/Verbal Aggression’ was a mean of peer ratings on how often children ‘hit, shoved or pushed’ and ‘yelled or called names’.

A MANOVA was performed on peer ratings of specific aggressive behaviours, with gender as a between subject factor. This revealed a multivariate trend, $F(5, 46) = 1.917, p = .112$. Univariate tests showed that boys were rated by peers as significantly more likely to hit, shove, or push, compared to girls, $F(1, 46) = 5.611, p < .05$. A second MANOVA was performed on the composite ratings of social aggression and physical/verbal aggression. Gender did not show a multivariate effect $F(2, 45) = 1.202, p = .310$, or univariate effects for physical/verbal aggression, $F(1, 46) = 2.415, p = .127$ or social aggression, $F(1, 46) = 1.661, p = .204$. Inspection of the mean ratings for boys and girls show that boys tended to receive higher peer ratings for all forms of aggression compared to girls.
Table 1.

Mean Peer Ratings (Standard Error) on Aggression and Helping Behaviour by Gender

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Girl</th>
<th>Boy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Aggression (Composite)</td>
<td>1.397 (.088)</td>
<td>1.572 (.104)</td>
</tr>
<tr>
<td>Rumours/Gossip</td>
<td>1.422 (.126)</td>
<td>1.633 (.149)</td>
</tr>
<tr>
<td>Rolls Eyes</td>
<td>1.407 (.111)</td>
<td>1.567 (.131)</td>
</tr>
<tr>
<td>Ignores</td>
<td>1.361 (.086)</td>
<td>1.516 (.102)</td>
</tr>
<tr>
<td>Physical/Verbal (Composite)</td>
<td>1.440 (.099)</td>
<td>1.679 (.117)</td>
</tr>
<tr>
<td>Hits/Shoves/Pushes</td>
<td>1.332 (.109)</td>
<td>1.733 (.129)</td>
</tr>
<tr>
<td>Yells/ Calls names</td>
<td>1.549 (.111)</td>
<td>1.626 (.132)</td>
</tr>
<tr>
<td>Helps</td>
<td>3.291 (.092)</td>
<td>3.084 (.109)</td>
</tr>
</tbody>
</table>

Children were classified as having a social aggression preference or a physical/verbal aggression preference if their mean peer composite ratings differed by at least 0.10. A Chi-square analysis was performed on the number of girls and boys categorized as having a social aggression preference, a physical/verbal aggression preference, or no preference. Although the analysis was not significant, \( \chi^2 (2) = 3.511, p = .173 \), children tended to demonstrate gender normative patterns of aggression, such that girls preferred to use social aggression over physical aggression, and boys preferred to use physical aggression over social aggression (see Figure 2).
Psychological Measures

It was unclear whether girls and boys would differ on their performance on the psychological measures used in this study. To investigate this, a MANOVA was performed, comparing girls’ scores with those of boys on measures of gender stereotyping, empathy, and the two theory of mind tasks (faux pas task and an eyes task). There was a significant multivariate effect of gender, $F(4, 41) = 3.70, p < .05$. Univariate tests showed that girls reported higher levels of empathy, $F(1, 44) = 7.442, p < .01$, whereas boys were more gender stereotyped, $F(1, 44) = 8.480, p < .01$. There was also a trend for girls to score higher on the faux pas theory of mind task, $F(1,44) = 2.461, p = .083$. There was no gender difference in performance on the eyes task, $F(1,44) = 0.601, p = .442$. Mean performance on these tasks as a function of gender can be seen in Table 2.
To determine whether performance on these four tasks was related, Pearson correlations were calculated. There was a significant relationship between gender stereotyping and empathy, $r(45) = -0.490, p < .01$, indicating that children who were more gender stereotyped reported less empathy. There was also a significant correlation between performance on the two theory of mind tasks, $r(47) = 0.422, p < .01$.

Table 2.

*Mean Performance (Standard Error) on Psychology Measures as a Function of Gender and Aggression Type.*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Girl</td>
<td>Boy</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>65.26 (.48)</td>
<td>59.00 (1.76)</td>
<td></td>
</tr>
<tr>
<td>Gender Stereotype</td>
<td>62.48 (2.29)</td>
<td>72.84 (2.73)</td>
<td></td>
</tr>
<tr>
<td>ToM – Faux Pas task</td>
<td>1.26 (.17)</td>
<td>0.79 (.20)</td>
<td></td>
</tr>
<tr>
<td>ToM – Eyes task</td>
<td>13.26 (.43)</td>
<td>12.74 (.52)</td>
<td></td>
</tr>
</tbody>
</table>

**Do the Psychological measures Predict Aggressive Behaviour?**

To determine whether peer ratings of aggression were related to performance on any of the four psychological measures, a series of correlations were performed. These correlations are shown in Table 3. Results showed that there was no correlation between gender stereotypes and peer ratings of aggression. There was, however, a marginal correlation between empathy and both social and physical/verbal aggression, such that
higher levels of empathy resulted in less social and physical aggression. The two theory of mind measures did not correlate with peer ratings of aggression.

Further correlations were conducted to explore whether preference for physical/verbal or social aggression was related to any of the psychological measures. There was a trend for children’s preference for physical over social aggression to be negatively associated with performance on the eyes task, \( r(47) = -0.243, p = 0.096 \), and the faux pas task, \( r(47) = -0.249, p = 0.087 \). Because gender tended to predict this preference, separate correlations were conducted for girls and for boys. Results showed that girls’ performance on the eyes task was negatively correlated with a preference for physical over social aggression, \( r(27) = -0.375, p = 0.05 \), and a trend for faux pas task performance, \( r(27) = -0.361, p = 0.059 \). Boys did not show any pattern between aggression type preference and performance on the psychological measures.

Table 3

*Correlations Between Peer Ratings of Aggression and Psychological Measures*

<table>
<thead>
<tr>
<th></th>
<th>Social Aggression</th>
<th>Physical Aggression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>-0.278</td>
<td>-0.290</td>
</tr>
<tr>
<td>Gender Stereotype</td>
<td>0.015</td>
<td>0.073</td>
</tr>
<tr>
<td>Faux Pas</td>
<td>-0.088</td>
<td>-0.138</td>
</tr>
<tr>
<td>Eyes Task</td>
<td>-0.148</td>
<td>-0.148</td>
</tr>
</tbody>
</table>

Do Theory of Mind and Empathy interact in predicting Aggressive Behaviour?

Previous research has shown an association between theory of mind, empathy and aggression such that lower levels of empathy and higher levels of theory of mind are
predictive of social aggression. Participants' empathy scores and theory of mind faux pas scores were coded into low, medium, and high groups. An ANOVA was conducted on peer ratings of socially aggressive acts, using empathy grouping and theory of mind grouping as between subjects factors. As Figure 2 shows, it appears that there is a trend in the predicted direction, where low empathy and high theory of mind was associated with more gossiping and rumour spreading. This did not approach significance, however, $F(4, 37) = 1.038, p = .401$.

![Figure 2. Mean peer ratings of spreading rumours or gossip as a function of theory of mind and empathy level](image)

**Attitudes Towards Aggression**

Children were asked questions about 4 socially aggressive scenarios and 4 physically aggressive scenarios. These scenarios differentiated social aggression into those that were intended to hurt another child (intentional social aggression) and those
that were intended more to express anger or frustration about a peer’s behaviour to other peers and may have served to increase within-group solidarity (social solidarity aggression). Although initial analyses included children’s gender, this proved not to be an important factor and was subsequently dropped from further analyses. In the following analyses, the likelihood of children giving a particular answer to a question about the scenarios was analysed in a one-way ANOVA using scenario aggression type (3 levels) as a within subjects factor.

Children were more likely to state that the perpetrator was mean or bad when the scenario depicted physical aggression ($M = 1.979$) or intentional social aggression ($M = 1.958$) than when the scenario depicted social solidarity aggression ($M = 1.750$), $F(2, 94) = 10.170, p < .001$. In all cases of physical aggression and most cases of intentional social aggression, perpetrators were evaluated negatively. Although perpetrators engaging in social solidarity aggression were rated less negatively, they still received predominantly negative comments from children.

When asked how they would feel if they were the victims of the three types of aggression (intentional social aggression, social solidarity aggression, and physical aggression), children reported that they would feel sad or upset significantly more often than they reported that they would feel ok or not be bothered by it, or that they would be angry or annoyed, $F(2, 94) = 74.212, p < .001$. They were equally as likely to say that they would feel sad or upset with the three types of aggression, $F(2, 94) = 3.046, p > .05$. When probed further, however, by being asked to rate on a scale of 1 – 5 how ‘bad’ they would feel after each type of aggression, they said that they would feel significantly less bad after being the victims of social solidarity aggression ($M = 2.984$) than intentional social aggression ($M = 3.859$) or physical aggression ($M = 3.564$), $F(2, 94) = 26.313, p <$
Simple comparisons showed that children rated feeling worse being the victim of intentional social aggression than physical aggression, \( F(1, 47) = 6.955, p < .05 \).

Separate ANOVAs were conducted across the three types of scenarios (physical aggression, intentional social aggression, social solidarity aggression) on the likelihood of participants saying they would tell an adult, deal with the situation themselves, or ignore the situation. Participants were far more likely to report that they would tell an adult after being the victim of physical aggression (\( M = 1.542 \)), followed by intentional social aggression (\( M = 1.125 \)), and they were least likely to tell an adult if they were the victim of social solidarity aggression (\( M = 0.792 \)), \( F(2, 94) = 18.862, p < .001 \). Simple comparisons indicated that each of these means was significantly different from one another. Conversely, children indicated that they would ignore social solidarity aggression (\( M = .688 \)) more than either physical aggression (\( M = .208 \)) or intentional social aggression (\( M = .354 \)), \( F(2, 94) = 10.943, p < .001 \).

**Are Attitudes Related to Behaviour?**

It might be expected that those who are more aggressive will rate aggression as less harmful than those who are less aggressive. To test this possibility, correlations were calculated between children's composite peer ratings on social aggression and physical/verbal aggression and children's ratings of how bad they would feel as a victim of aggression. As predicted, there were a number of significant or marginal negative correlations between using aggression and ratings of the harm of aggressive acts. These are shown in Table 4.
Table 4

*Correlation Between Peer Ratings of Aggression and Children’s Ratings of Harm When a Victim*

<table>
<thead>
<tr>
<th>Victim Scenario</th>
<th>Peer Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social Aggression</td>
</tr>
<tr>
<td>Physical</td>
<td>-.331*</td>
</tr>
<tr>
<td>Intentional Social</td>
<td>-.251</td>
</tr>
<tr>
<td>Social Solidarity</td>
<td>-.358*</td>
</tr>
</tbody>
</table>

Note: *p < .05

*Are Self-Ratings related to Peer Ratings?*

A separate MANOVA was conducted on self and peer ratings of specific aggressive actions. This analysis included gender as a between subjects factor. Peer and self-ratings were concordant for physical and verbal aggression, $F(1, 45) = .488$, but peer ratings were higher for social aggression ($M = 1.473$) than were self-ratings ($M = 1.294$), $F(1, 45) = 4.250$, $p < .05$, meaning that perpetrators of social aggression were less likely to admit to it than perpetrators of physical or verbal aggression. It seems that children are more insightful about their physically aggressive behaviours than their socially aggressive ones.
Discussion

The Present Study

Aggression in children is a hurtful and often damaging behaviour, both physically and psychologically. It is therefore a very important area of research. If researchers can attempt to understand children's patterns of aggression, a way of remedying these behaviours may be determined through communicating to children alternative ways of expressing their frustration.

Physical aggression in children has been studied extensively, and it has been found that boys exhibit much higher levels of this behaviour than girls (Keenan & Shaw, 1997). Social aggression has been studied more recently, and it has been found that girls use this form of aggression more often than they use physical aggression (Ostrov & Keating, 2004; Paquette & Underwood, 1999, Young, Boye, & Nelson, 2006), but it remains controversial as to whether girls use social aggression more than boys do. Social aggression is however an important form of aggression to examine, as some children may be wrongly classified as non-aggressive if this behaviour is not considered. Furthermore, it has been shown that social aggression can be just as hurtful as physical aggression to children, so it is imperative that we attempt to try and understand this behaviour.

Aggression Levels

As expected, boys exhibited higher levels of physical aggression than girls. There was also a strong trend for boys to be more socially aggressive than girls. It is probable that the small sample size of the present study did not give enough power to obtain a
significant result. Future research should utilize a larger sample size to identify whether this finding accurately reflects the behaviour of New Zealand primary school children.

One of the main focuses of this research was to examine the prevalence of social aggression in girls. Some researchers have proposed that girls are equally as aggressive as boys, but that they use social aggression instead of physical aggression. Previous research has been conflicting on the issue of whether or not girls use social aggression more often than boys. Some researchers have found that girls use social aggression more often than boys do (Moretti et al., 2001; Bonica, Arnold, Fisher, Zeljo, & Yershova, 2003), others have found that they exhibit similar levels of social aggression (Paquette & Underwood, 1999; Loukas, Paulos, & Robinson, 2005; Hart et al., 1998), and some have reported that boys use more social aggression than girls (Hennington, Hughes, Cavell, & Thompson, 1998; Tomada & Schneider, 1997; Rys & Bear, 1997; David & Kistner, 2000).

This study was the first to show that in a sample of New Zealand children it appears that boys used more social aggression than girls. This finding furthers the larger body of research conducted overseas, and also provides a preliminary investigation into aggression patterns exhibited by children in New Zealand's unique cultural environment. The results of this study challenge the contention that girls are as aggressive as boys but that they employ different strategies. It lends support to the long-held belief that boys are more aggressive than girls, as they engaged not only in higher levels of the types of aggression more commonly found among males than females, physical and verbal aggression, but it also appears that they were more socially aggressive, a behaviour which is often classified as 'female'. This finding is similar to results reported by Tomada and Schneider (1997) in a sample of Italian children. In this study, boys were more physically, verbally, and socially aggressive than girls. This research combined with the
present study challenge the idea that gender differences in aggression are universal – that boys solely employ physical and verbal aggression tactics and that girls solely employ social aggression tactics.

**Gender Stereotypes**

The findings of the present study raise the question of why New Zealand boys are perhaps more socially aggressive than their American counterparts. One reason could be that gender stereotypes in New Zealand may not be as strict as those in the US. Auster and Ohm (2000) conducted an investigation into views on masculinity and femininity in contemporary American society. They compared participants’ ratings of the desirability of masculine and feminine traits to ratings of participants from 1972. The authors concluded that despite significant societal change in men and women’s roles, traditional gender role images of what is deemed desirable in a man and a woman are still pervasive. Similar findings were reported in a meta-analysis of 30 studies from 1974 to 1997 with 4000 respondents (Lueptow, Garovich-Szabo, & Lueptow, 2001). Although large-scale changes in the public roles of men and women have occurred over the last 30 years, changes in sex-typing have not followed. Stereotypes have reportedly remained stable or have even slightly increased.

Gender normative behaviour may not be as rigidly defined as it is in the US, leading New Zealand boys to engage in aggressive tactics that would perhaps be considered more ‘female’ behaviours in America. The reverse does not appear to be true for New Zealand girls however – they are not engaging in more physical aggression. This could mean that maybe aggression levels in New Zealand are lower in general than in the US. If the display of physical aggression is merely less acceptable in New Zealand than
in the US, boys may be resorting to other means by which to express their anger, namely social aggression. It may be that the US is a more strongly gendered society, where physical aggression and perhaps patriarchy is more acceptable than in New Zealand. Perhaps the boundaries around gendered behaviour are moremutable, and children would not be as strongly ostracized for acting in a gender atypical way.

Because traditional gender roles in girls have been shown to be associated with higher levels of relational aggression (Crothers et al. 2005), it may be the case that New Zealand children are not as strongly gendered. The present study found no correlation between gender stereotypes and aggression levels. This may be because gender stereotypes in New Zealand are not a strong predictor of aggression levels, because they are not as relevant in our culture as they are in the US. Themes of gender equality and kindness to one another are seamlessly interwoven throughout the teaching curriculum, resulting in zero tolerance for bullying in pre-schools and schools. This environment may mean that traditional gender stereotypes are less applicable than they once were. In a culture of tolerance and acceptance like that fostered in New Zealand schools, children may not develop an understanding of what traditional gender roles comprise. Therefore, such roles may not contribute to whether or not New Zealand children engage in aggressive behaviour. Due to the low levels of aggression found in this study, the contribution of gender stereotypes to aggression in New Zealand children needs to be investigated more fully, with a larger sample size, in order to rule out the possibility that there was not enough statistical power to detect a correlation.

Gender stereotypes may be more relevant in predicting aggression in a culture that is more conservative. It remains to be seen as to whether New Zealand boys are simply more aggressive than US boys, as they are engaging in higher levels of social aggression.
as well as using physically aggressive tactics, or whether they are simply supplementing their use of physical aggression with that of social aggression. It may be that the overall levels of aggression in New Zealand are lower and because they are not engaging in as much physical aggression as their US counterparts, they are resorting to socially aggressive tactics as well. Because overall levels of aggression were low in this sample, there is support for the latter contention, however, aggression levels of children from both countries need to be compared to identify what is happening here. To uncover the societal processes at work, it would also be pertinent to compare gender stereotypes of New Zealand and American children, to see whether there is an association between gender stereotypes and aggression levels in these different cultures.

One finding consistent with the American literature was that girls engaged in more social aggression than they did in physical aggression. It has been well supported by previous research that girls consistently choose socially aggressive over physically aggressive tactics the world over. This finding bolsters the argument that females universally prefer social aggression to physical aggression. Because gender stereotypes were not related to aggression in this sample, it is clear that girls were not simply engaging in social aggression to adhere to the feminine gender norm of appearing polite and maintaining outwardly harmonious relationships. It is apparent that girls are choosing covert means of aggression as opposed to overt displays of aggression, although the reasons for this remain unclear.

These results are in concordance with the predictions made by two cultures theory (Maltz & Borker, 1982): it may be that girls seek to avoid conflict within their friendships to maintain close and harmonious relationships. In line with this idea, it is also possible that girls are reluctant to resort to overt displays of anger for fear of appearing rude. They
may prefer to save a peer’s feelings by acting politely towards them and then venting their anger later to another peer. Direct confrontation can be a daunting prospect, and avoiding this could seem desirable. These reasons may be less selfish and harmful than another possibility: that girls may be using social aggression as a tool to distort their peers’ views of another in order to gain popularity. If social aggression is being used for this purpose, then anonymity will be one of the main attractions. They will avoid being linked back to the rumour-spreading, thus protecting their status. Individual factors, such as family situation, and psychological characteristics, such as information processing strategies, empathy, and Theory of Mind, may also play a role in the manifestation of aggression.

It is important to uncover the underlying psychological mechanisms behind why youth resort to social aggression, in order to devise a way to encourage children to address interpersonal conflicts in a more healthy way. Future research should confront this problem by broadening the scope of tests used. To gain an idea of the motives behind aggression, children should be asked questions about their friendships and in particular, why social aggression would be preferable to other means of resolving conflict. This line of research may lead to ways of challenging this pattern of behaviour. For example, if children state their reason for using social aggression as a desire to avoid hurting their friend through confrontation, it could be pointed out that if this type of aggression became known to the victim, they would inevitably be just as hurt. It could be suggested that instead children talk to their friends about sources of conflict, in a non-confrontational way. Family circumstances, such as parenting methods, socio-economic status, number of siblings, and marital status of parents should also be investigated in relation to social aggression in New Zealand children.
It is also important to devise tests to examine whether individual psychological characteristics are significant in predicting aggression.

The present study was a preliminary look at whether social aggression exists in New Zealand primary schools, and as such, it did not extend to these areas of enquiry. Now that it has been established that social aggression is a phenomenon that is occurring in New Zealand, and that it is hurtful to New Zealand children, a more in-depth enquiry needs to take place.

**Empathy**

Girls in this sample exhibited more helping behaviour and higher levels of empathy than boys. Consistent with previous research (Miller and Eisenberg, 1998; Kaukiainen et al., 1999) a correlation between empathy and social and physical aggression was found in girls, such that higher levels of empathy resulted in less aggression. This relationship was not found in boys.

Because girls are more empathetic towards their peers than boys, this leads to the conclusion that girls may have greater empathic concern, that is, they may care more about their social relationships than boys do. This finding suggests that girls put in more effort and care more about others, and are less likely to resort to aggressive tactics. It is in line with the ethos of the two cultures theory (Maltz & Borker, 1982), which states that girls' friendships are more intimate and caring than those of boys, and that girls are more concerned about their peers' feelings. However, it challenges the contention put forward by peer relations researchers that boys care as much about close relationships with their peers as girls do. It may be that girls put more time and effort into building and
maintaining their friendships through helping behaviours because they care more about how their friends are feeling.

Empathy was also related to gender stereotyping scores in girls, but not in boys. Girls who rated higher on levels of empathy were less gender stereotyped. It may be that girls who are more empathic are better at perspective taking, and therefore believe that sharing household duties, receiving equal opportunities, etcetera are important. Or it may be simply that living in a household that fosters empathy also encourages a liberal attitude towards gender equality. It would be interesting to investigate this issue by examining family attitudes towards gender roles and seeing whether they are related to empathy levels.

Low levels of empathy were associated with physical aggression in the form of hitting, and with the socially aggressive behaviour of eye rolling or giving a mean look, as rated by peers. Previous research has identified these relationships, with both physical and relational aggression being associated with low levels of empathy (Bjorkqvist, Osterman, and Kaukiainen; 2000). Intuitively, children who care less about others are more willing to use aggressive tactics against them. What is interesting about the social aggression findings in the present study is that only the socially aggressive behaviour of eye rolling or giving a mean look was associated with low levels of empathy, and not the other socially aggressive behaviours (spreading rumours, gossiping, ignoring, and excluding). It is possible that eye-rolling was a significant predictor of low levels of empathy due to this behaviour being a flippant display of disdain for a peer, where the perpetrator has not attempted to disguise their negative thoughts about the victim at all, and has most likely intended the victim to see the slight. Out of the three socially aggressive behaviours children were asked to rate each other on (giving a mean look or
eye-rolling, ignoring/excluding, and spreading rumours/gossiping), eye-rolling was the only overt behaviour, where the victim would most likely be aware of who the perpetrator was. For this reason, it may involve more malicious intent than the other behaviours, and therefore a lack of sympathy for the victim’s feelings. For reasons previously discussed, the covert socially aggressive behaviours may not necessarily reflect spiteful and selfish motives: children may be performing socially aggressive behaviours in order to avoid confrontation and/or to foster close friendships. This may be the reason why these covert behaviours were not associated with empathy levels.

**Theory of Mind**

The Faux Pas task was used as a measure of Theory of Mind. The Eyes task was a measure of emotion recognition, which also gauges one form of Theory of Mind, whereby children have to evaluate the mental states of others through identifying their facial expression. Performance on these two tasks was correlated, indicating that they were both reliable measures of Theory of Mind.

There was a trend for girls to do better on the Faux Pas task, which suggests that girls may be better at identifying emotions than boys. Combined with the finding that girls have higher levels of empathy than boys, this may mean that girls are better at perspective taking, or understanding the viewpoint of others. This contention is strengthened by the finding that girls’ performance on the Eyes task was negatively correlated with a preference for physical over social aggression. In other words, girls who choose to utilize the non-gender normative behaviour of physical aggression over social aggression are poorer at recognizing the emotions of others. Furthermore, boys reported feeling just as sad/upset as girls after being the victims of aggression. This indicates that
they view aggression as just as hurtful as girls do, so they are not more aggressive simply because they are unaware that it is a hurtful behaviour. It seems likely that they find it more difficult than girls to take the perspective of another and inhibit their aggression for fear of hurting someone’s feelings. It therefore appears that the use of social aggression indicates a greater understanding of others.

Children with a higher level of Theory of Mind have been shown to engage in more indirect aggression (Sutton et al., 1999). Taking into consideration the finding that children with high levels of empathy engage in less indirect aggression, a recent study sought to investigate whether there was a relationship between empathy, Theory of Mind, and indirect aggression (Renouf, Brendgen, Séguin, Boivin, Dionne, Vitaro, Péruisse, & Tremblay, 2006). It was found that low levels of empathy combined with high levels of Theory of Mind resulted in high levels of indirect aggression. It seems that children who have a good understanding of how others’ think and therefore know how to manipulate them best, and seem to lack concern for their feelings, will socially aggress more. Social aggression is a more sophisticated way of hurting others than physical aggression, because it involves the ability to understand how to hurt another through manipulating the mental states of their peers. A child with high empathy may understand how this can be achieved, but would not choose to employ socially aggressive tactics against another because they do not desire to hurt them.

An advantage to the perpetrator of social aggression is anonymity. If they wish to hurt someone without getting caught, social aggression will be more successful than physical aggression. Because they have a sophisticated understanding of others, they will understand that if people know that they are the aggressor, it will reflect badly on them. Thus social aggression provides them with a way to remain anonymous. They can hurt
others whilst avoiding being caught, either by teachers (which will get them in trouble) or by peers (which may damage their popularity). So they can sabotage others’ popularity through socially aggressive tactics like spreading rumours, without being held accountable. Those who have low empathy and low ToM will perhaps employ physically aggressive tactics rather than socially aggressive ones because they have no regard for others’ feelings, but they do not understand how to hurt them in a more sophisticated way.

Results from the present study did not show a significant association between Theory of Mind, empathy and aggression. There was a trend in the expected direction, however, such that those who scored lowest on the measure of empathy and high on the Faux Pas task (a measure of Theory of Mind) were more involved in spreading rumours and gossiping. It therefore appears that a lack of consideration for the feelings of others combined with a superior understanding of how to manipulate the thoughts of others’ may result in social aggression. The reason for the non-significant result may have been due to the present study having a small number of participants. Renouf et al. (2006) examined the correlation between these 3 variables in 5- and 6- year olds using 560 participants. An unpublished Masters thesis (University of Otago) has also investigated whether it occurs in University students. The present study was the first to consider this relationship in 8- to 12- year olds. It would be pertinent to investigate this relationship further with a larger sample size to establish whether or not this relationship is important in predicting social aggression in primary school children.
Attitudes Towards Aggression Questionnaire

Ratings of Aggressive children

There is a large body of research showing that overt (physical and verbal) aggression is associated with social and behavioural problems in children. Most children who exhibit these kinds of behaviours, however, are boys. This study expands on the small amount of research aimed at discovering whether the type of aggression more commonly found in girls, social aggression, is also associated with social problems. Crick and Grotpeter (1995) found that relationally aggressive children were more disliked and rejected than other children. This study provides a preliminary investigation into how children in New Zealand regard their aggressive peers. Results were consistent with previous research into relational and overt aggression, in that children evaluated other aggressive children negatively. An interesting finding was that socially aggressive children were just as negatively evaluated as physically aggressive children. In comparing the two forms of aggression, it is apparent that children regard social aggression as a mean behaviour that is obviously aimed at hurting others, just like physical aggression.

This study asked children to evaluate hypothetically aggressive children, and not their actual peers. It would be interesting to expand on this finding by asking children to rate the aggression of their peers and also to indicate how much they like or dislike these peers. A comparison of these measures would give an indication of how the children view aggressive others. This would mean that we could gain a better understanding of the social dynamics of aggression, that is, if aggressive children in New Zealand schools are rejected and disliked, and how complex this relationship is. For example, Crick (1996) found that a low level of prosocial behaviour combined with high levels of aggression
was the highest predictor of social rejection. Rose et al. (2004) elaborated on this finding by demonstrating that relational aggression is not always equated with rejection. Two distinct groups of relationally aggressive youths were identified – those that were disliked and had low levels of prosocial behaviour, and those that were popular and had high levels of prosocial behaviour. Future research needs to determine whether these two different types of relationally aggressive children can be found in New Zealand schools. It would be interesting to also examine whether Theory of Mind also plays a role in this equation – it may be the case that popular socially aggressive youth have a higher level of Theory of Mind. In other words, they have a greater understanding of how to manipulate relationships in a socially aggressive way to enhance their status whilst engaging in prosocial acts to maintain this popularity.

It is important to examine the repercussions of relational aggression on the aggressive individual. Research in the US has shown that relationally aggressive children are lonelier and more depressed than other children (Crick & Grotpeter, 1995), but it is likely that these children fall into the category of disliked relationally aggressive youths who are less prosocial. Popular relationally aggressive youth probably view it as a successful tactic in maintaining and advancing their social standing, and therefore do not experience any negative psychological outcome. If this is the case, interventions with these popular relationally aggressive youth may need to focus on fostering empathy for the victims of social aggression.

*Intentional Social Aggression versus Social Solidarity Aggression*

Children in this sample were also found to be sensitive to the intentions of others. The present study was the first to differentiate intentional social aggression from that
which occurs with the intent of building social solidarity. Children may engage in social aggression for the purpose of strengthening friendships through confiding in or venting their frustrations to others. For example, children were asked what they would think of another child who said to a peer, “Have you heard about Mary, she’s trying to be the teacher’s pet, that’s just awful”. This statement represents a child who is engaging in social aggression by talking behind another’s back, but may be merely venting her frustrations to another. Children were also asked what they would think of a peer who passed around a note about another child with a mean statement about that child, and then when it reached the child they looked up and the perpetrator was sarcastically smiling at them. This clearly represents an example where the child was also engaging in social aggression, but had much more malevolent intent behind it: they wanted to hurt the other child and damage their reputation, and it is unlikely that they were doing it merely to vent their frustrations about the other child’s behaviour. It was found that children were aware of the difference in intent, and viewed the child who performed the intentional social aggression much more negatively than the child who engaged in social solidarity aggression.

Intentional social aggression was even viewed as more hurtful than physical aggression. When asked how they would feel about being the victims of either physical, intentional social aggression, or social solidarity aggression, children reported most often that they would be sad or upset and this answer was given equally as often for all three types of aggression. But when children were probed further about their feelings, and asked to give a rating on a scale of 1 to 5 about how ‘bad’ they would feel after experiencing the different types of aggression, they reported that they would feel worst after intentional social aggression. The next highest rating was given to physical
aggression, followed by social solidarity aggression. This study is the first to show that New Zealand children of primary school age view social aggression as a harmful and upsetting behaviour that is even more unwelcome than physical aggression. Interestingly, children who were rated as more aggressive by their peers reported that they would not feel as bad after experiencing aggression than their less aggressive peers. It appears then that children who are aggressive are not aware of the impact of their behaviour on their victims. They view aggression as less harmful, and are therefore probably more likely to continue to aggress.

When asked what they would do if they were the victims of aggression, children were far more likely (with all three types of aggression) to report that they would tell someone, rather than try and deal with it themselves or ignore it. This is encouraging as it means that in the majority of cases, children will hopefully be getting some help or advice with how to deal with the situation, so that they don’t feel alone and overwhelmed. But children reported that they were far more likely to take action when they were the victims of physical aggression than of social aggression. Because we now know that children feel worse when they are the victims of intentional social aggression than physical aggression, we can be sure that they are not reluctant to ask for help because they aren’t upset by it. So why do children ask for help more often after being the victims of physical aggression?

One reason could be that they are embarrassed to talk about being the victim of social aggression. They may think that it’s ‘not a big deal’ and that they should be able to deal with it themselves. Most children are aware that physical aggression is bad or wrong, so they can be sure that if they are a victim of it, the perpetrator should be held accountable. Campaigns against bullying are common in New Zealand schools, and
children are told to report incidences of bullying as soon as they occur. Because of this, children are likely to feel that a person of authority will listen to them and be sympathetic, and that action will be taken to ensure it doesn’t happen again. But when a child is the victim of social aggression, the situation is more complicated. With physical aggression, there is something concrete that has occurred (a hit, push or shove), but with social aggression the child may feel confused about what has actually happened, and whether or not they did anything to deserve it. Because the lines are more blurred around social aggression, the victim may be worried that if they tell someone, it will be perceived as an overreaction.

Social aggression is not addressed as well as physical aggression. Parents and teachers may not see it as harmful or important enough to respond to, but as this study shows, children do find it harmful. Parents may not view social aggression as seriously as if their child is physically bullying others, and therefore may not be as willing to take action. It therefore needs to be brought into the public arena and discussed more openly, so that adults and children can be made aware that it is a damaging behaviour that needs to be addressed, and this information should be incorporated into the current bullying campaigns that run in schools.

It is also possible that victims of social aggression are more reluctant to come forward because they simply don’t know who the perpetrator is. One of the appeals of social aggression is the anonymity – with physical aggression one can of course be sure of who hit, pushed, or shoved them, but it is harder to determine who spread a rumour.

As well as victims of social aggression being more unwilling to come forward, perpetrators were less likely to own up. Peer and self-ratings for physically and verbally aggressive behaviours were concordant, meaning that children admitted using these forms
of aggression. But children were reluctant to own up to being socially aggressive – their peers rated them as using more social aggression than they themselves did. Children may be reluctant to admit to using social aggression because they may not view themselves as ‘spreading rumours or gossiping’. When they talk behind another’s back, they may see this as merely expressing their feelings and frustrations or defending themselves, as a way of venting, as opposed to a hurtful and aggressive behaviour. Even if this is the case, they may be hurting others’ in the process. This information may be talked about by others (whether intended to be passed on to others or not) and turned into gossip that in turn hurts the victim’s social status and/or self-esteem. So the perpetrator may not perceive themselves to be spreading gossip, but victims of social aggression may result all the same. In contrast, perpetrators of physical aggression would probably find it harder to deny to themselves that they hit or pushed another, as this is an overt behaviour, and not simply a matter of perception.

Future research needs to delve further into the ramifications of social aggression on the victim. This is especially important considering the findings of the present study, that New Zealand children are hurt more by social aggression than physical aggression. Therefore investigation into the psychological outcomes of being the victim of social aggression and how it can impact the individual’s life needs to take place.

**Age**

Age was not correlated with aggression in the sample studied. The developmental theory of aggressive behaviours (Björkqvist et al., 1992) states that aggression is related to developmental stages that children go through. Physical aggression is the first to emerge, when young children are first developing new motor skills. Secondly, verbal
aggression develops, when children learn how to use language to communicate their desires. And finally, indirect aggression emerges, as children develop greater socio-cognitive skills that allow them to understand the minds of others.

According to this model, it would be expected that younger children exhibit greater levels of physical aggression and older children exhibit greater levels of social aggression. It may be the case, however, that the age group studied was not broad enough to show such changes (8- to 12-year olds). Higher levels of physical aggression may be found in children younger than this age group. It is also possible that this is an intermediate stage with regards to the development of social aggression. As children grow older and develop a greater understanding of others’ thought and emotions, and social groups become more complex and demarcated, more social aggression may arise through the desire to define one’s social status. The sample size \((n = 48)\) may also have made it more difficult to determine significant findings. As such, it would be interesting to carry out a more large-scale study in New Zealand, with a greater sample size involving a broader age range, perhaps from the first year of school to the final year. This would give researchers a greater understanding of the manifestation of aggression, and in particular would provide a target group for future interventions.

Another important aspect of social aggression to investigate is whether it varies with socio-economic status. The present study utilized high decile schools with ratings of 9 or 10, and low levels of both social and physical aggression were found. It could be predicted that lower decile schools may have a higher incidence of physical aggression and a lower incidence of social aggression. This may vary with single sex and mixed sex schools as well. For example, single sex boys’ schools may have a higher incidence of physical aggression than mixed sex schools, and single sex girls’ schools may have a
higher incidence of social aggression than mixed sex schools. This would apply to an older age range of youth at high school rather than the age range examined in the current study, therefore it is important to explore more fully the intricate social dynamics at work in social aggression by broadening the scope of research conducted.

This study provides an insight into the aggression patterns in New Zealand primary school children, and will hopefully act as a stepping stone to further research aimed at conducting a more indepth analysis of social aggression in New Zealand children.
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Appendix A

SOCIAL, PHYSICAL, AND VERBAL AGGRESSION IN MIDDLE CHILDHOOD

INFORMATION SHEET FOR PARENTS/ GUARDIANS

Dear Parent/Guardian,

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not you would like your child to participate. If you decide to have your child participate we thank you. If you decide not to have your child take part, there will be no disadvantage to you or your child of any kind and we thank you for considering our request.

What is the Aim of the Project?

This project is being undertaken as part of the requirements for a Masters degree and as staff research. This project focuses on the factors related to the use of physical, verbal, and social aggression in children. It examines the relationship between children’s social understanding – the understanding of the mental and emotional states of others – empathy, attitudes towards gender, and aggression. In particular, we are investigating the ways in which these factors might be important in determining children’s use of specific forms of aggression.

What Type of Participants are being sought?

Participants between the ages of 7 to 11 years are being invited to participate in this study.

What will Participants be Asked to Do?

Should you agree for your child to take part in this study, he or she will be asked participate in one 50-minute session at school. Children participating in this study will be told some short stories and then asked questions about the characters’ behaviours. They will also be presented with stories about social faux pas and will be asked about their understanding of the situations. In another brief task, children will be shown a series of pictures of the eye regions of peoples’ faces. They will be asked to select which of four possible alternatives best describe what the pictured person is thinking or feeling. Empathy, gender role attitudes, and social attitudes will be measured by asking children to complete three short questionnaires. Peer ratings will be used to assess each child’s use of aggressive and prosocial behaviour. The children participating in the study will be asked to indicate whether a statement, such as “shares with other children” or “pushes other children” is likely of one another.

Please be aware that you may decide not to have your child take part in the project without any disadvantage of any kind to yourself or your child.
Can Participants Change their Mind and Withdraw from the Project?

You may withdraw your child from participation in the project at any time and without any disadvantage of any kind to yourself or your child. Your child may also decline to participate at any time without any disadvantage.

What Data or Information will be Collected and What Use will be Made of it?

Each session will be audio-taped. Children will be identified by an arbitrary code, not by name, and all data collected will be kept confidential. Results of this project may be published, but any data included will in no way be linked to any specific participant.

You are most welcome to request a detailed copy of the results of the project should you wish. A summary of the results will be sent to you upon completion of this project.

The data collected will be securely stored in such a way that only those directly involved in the project will be able to gain access to it. At the end of the project any personal information will be destroyed immediately, except the raw data on which the results of the project depend, which will be retained in secure storage for five years. This is a requirement of the University's research policy, and all data may be completely destroyed after this compulsory five years.

What if Participants have any Questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:-

Dr. Tamar Murachver or Charlotte Kerr
Senior Lecturer Masters student
Department of Psychology Department of Psychology
University Telephone Number: 479-8351 479-5883
Email: tamar@psy.otago.ac.nz

This project has been reviewed and approved by the University of Otago
Human Ethics Committee
SOCIAL, PHYSICAL, AND VERBAL AGGRESSION IN MIDDLE CHILDHOOD

CONSENT FORM FOR PARENTS / GUARDIANS

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:-

1. My child’s participation in the project is entirely voluntary;
2. I am free to withdraw my child from the project at any time without any disadvantage;
3. Any raw data on which the results of the project depend will be retained in secure storage for five years, after which they may be destroyed;
4. The results of the project may be published and will be available in the library, but every attempt will be made to preserve my child’s anonymity.

I agree for my child to take part in this project.

.................................................................................................................... .................................

(Signature of parent/guardian)  (Date)

Child’s Name: ........................................................................................................

Teacher’s Name and/or Classroom Number: ......................................................

Child’s Date of Birth: .........................................................................................

This project has been reviewed and approved by the University of Otago
Human Ethics Committee
Appendix B

Social, Verbal, and Physical Aggression in Middle Childhood

CONSENT FORM FOR CHILDREN

I have been told about this project and understand what it is about. All my questions have been answered in a way that makes sense.

I know that:

* Participation in this study is voluntary, which means that I do not have to take part if I don't want to and nothing will happen to me. I can also stop taking part at any time and do not have to give a reason.

* Charlotte will be asking me questions about some stories and some pictures. She will also ask me about how I feel about different things.

* There are no right or wrong answers and if I don't want to answer some of the questions, that's fine.

* Anytime I want to stop talking that's okay and Charlotte will turn the tape-recorder off.

* Charlotte will write up the results from this project for her University work. The results may also be written up in journals and talked about at conferences. Charlotte might write about some of the things I've talked about, but won't use my name, so no-one will know it was me.

* The audio-tape and the copy of my words from the tape will only be seen by Charlotte and the people she is working with. They will keep whatever I say private.

* If I have any worries about our talk, or if I have any other questions, then I can talk about these with Charlotte.
I consent to Charlotte talking with me today and to the talk being audio-taped.

Signed

Date
Appendix C

Gender Stereotyping Questionnaire

Rate how much you agree or disagree with the following statements:

1. Taking care of the children should be divided equally between the mum and the dad.
2. Girls should be allowed more time in the gym and allowed more access to sports facilities.
3. Husbands and wives should do the same amount of housework such as cooking, washing dishes, and housecleaning.
4. The wife should do most of the childcare.
5. Girls are naturally better at English and Social Studies.
6. Women are better suited to childcare than men.
7. Professional women’s sports teams should receive less money than professional men’s sports teams.
8. Boys are naturally better at Maths and Science.
9. Men are better suited to work outside than women.
10. Boys and girls should have equal opportunity and should not be treated differently.
11. Girls should be more concerned with clothing and appearance than boys are.
12. It should be equally acceptable for boys and girls to cry in front of other people.
13. It is better for kindergarten teachers to be women than to be men.
14. Boys are naturally better at learning to use computers.
15. Boys should be encouraged to do things that boys like to do, and girls should be encouraged to do things that girls like to do.
16. Boys should be allowed more time in the gym and allowed more access to sports facilities.
17. The husband should contribute most to the family income by working.
18. Boys and girls should be encouraged to do the same things.
19. Boys are naturally better at most sports.
20. The wife should do more housework than the husband.
21. Parents should spend more time teaching girls to take care of their appearance than they should spend teaching boys about this.
22. High schools should spend the same amount of money on girls’ sports as on boys’ sports.
23. The husband and wife should both contribute equally to the family income by working.
24. Boys and girls should have equal opportunity and should not be treated differently.
25. It should be equally acceptable for girls and boys to play rough sports like rugby.
26. Boys should be encouraged to do things that girls usually do, and girls should be encouraged to do things that boys usually do.
Appendix D

Bryant’s Index of Empathy for Children and Adolescents

Read each of the following statements and indicate whether you agree or disagree.

1. It makes me sad to see a girl who can’t find anyone to play with.
2. People who kiss and hug in public are silly.
3. Boys who cry because they are happy are silly.
4. I really like to watch people open presents, even when I don’t get a present myself.
5. Seeing a boy who is crying makes me feel like crying.
6. I get upset when I see a girl being hurt.
7. Even when I don’t know why someone is laughing, I laugh too.
8. Sometimes I cry when I watch TV.
9. Girls who cry because they are happy are silly.
10. It’s hard for me to see why someone else gets upset.
11. I get upset when I see an animal being hurt.
12. It makes me sad to see a boy who can’t find anyone to play with.
13. Some songs make me so sad I feel like crying.
14. I get upset when I see a boy being hurt.
15. Grown-ups sometimes cry even when they have nothing to be sad about.
16. It’s silly to treat dogs and cats as though they have feelings like people.
17. I get mad when I see a classmate pretending to need help from the teacher all the time.
18. Kids who have no friends probably don’t want any.
19. Seeing a girl who is crying makes me feel like crying.
20. I think it is funny that some people cry during a sad movie or while reading a sad book.
21. I am able to eat all my biscuits even when I see someone looking at me wanting one.
22. I don’t feel upset when I see a classmate being punished by a teacher for not obeying school rules.
 Appendix E

Physical Aggression Vignettes

1. Someone is playing on the classroom computer and a kid comes up and pushes them off their chair so they fall, and the kid says, “I’m playing on this now.”

2. Someone is walking down the corridor at school and a group of kids come up behind them and push them so they fall over, and they then laugh and run away.

Social Aggression – Intentional Vignettes

3. Someone walks up to a group of kids and says, “hi.” They say, “Don’t talk to us” and walk off.

4. A kid passes around a note about someone saying, “Don’t be friends with her, she is a loser,” and when it reaches that person, they look up the other kid is sarcastically smiling at them.

Social Aggression – Solidarity Building Vignettes

5. A kid walks by a group of other kids. As they walk by, someone in the group rolls their eyes and all the others laugh.

6. A group of friends are talking. One of them says, “Have you hear what Amy did? She is trying to be the teacher’s pet. That’s so lame!” Someone else says, “yeah, she’s just awful.”

Questions:

1. How would this make you feel if this happened to you?
2. What do you think of the kid(s) who did this?
3. What would you do if this happened to you?
4. On a scale of 5, how bad would you feel if this happened to you? Not bad at all – really bad.