The emotion style of aggressive-rejected children

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THE EMOTION STYLE OF AGGRESSIVE-REJECTED CHILDREN

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CERTIFICATION

I, Jane Bajgar, declare that this thesis, submitted in fulfillment of the requirements for the award of Doctor of Philosophy, in the School of Psychology, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Jane Bajgar

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ABSTRACT

Prior research suggests that the perceptions and emotions reported by children who are aggressive and are rejected by their peers are incongruent with their social standing and that this aggressive-rejected subgroup often report as though they are not rejected. In contrast to this, the withdrawn-rejected and aggressive-withdrawn-rejected subgroups report relatively high levels of distress and poorer mental health. The aim of the present research was to explore the emotion experiences of the aggressive-rejected subgroup in greater depth and to determine why this subgroup reports so little emotional distress. Three studies were conducted. The first study focused on the development of a measure to assess emotional awareness in children – the Levels of Emotional Awareness Scale for Children (LEAS-C). The second study was originally intended to be the main sociometric study of the present research. However, a low participation rate did not allow sufficient numbers to generate rejected subgroups. Study 3 addressed these methodological issues by using passive consent procedures which resulted in a participation rate of 82% (n = 471). Assessment of emotion experience included depression, anxiety, range in positive and negative emotions and anger expression. Processes which may account for low self-reported distress were also explored and included denial and repression, rejection sensitivity and emotional awareness. Emotion experiences and emotion processes were compared between three rejected subgroups – aggressive-rejected, withdrawn-rejected and nonaggressive-nonwithdrawn-rejected and the neglected and average groups. Emotion variables of the rejected subgroups and the neglected group were compared to those reported by the normative average status group. The emotion experiences of the aggressive-rejected subgroup were found to be similar to those reported by the average group. Contrary to expectations, the emotion experiences

reported by the withdrawn-rejected subgroup also differed little from the average group. The lack of difference between aggressive-rejected and withdrawn-rejected subgroups raised questions about how distinct the emotion experiences of these two groups were from one another. In general, there was insufficient evidence to support the low-distress hypotheses in aggressive-rejected children. The emotion processes reported by the aggressive-rejected subgroup also did not differ from those reported by other groups. With regard to emotion processes the aggressive-rejected subgroup did not make greater use of denial or repression, levels of rejection sensitivity were not lower and the emotional awareness of the aggressive-rejected subgroup did not differ from the other groups. Posthoc analyses explored whether methodological factors may have contributed to the lack of differences between the aggressive-rejected group and other rejected groups. The procedures to identify subgroups in this study were identical to those used by other researchers in the field. The proportion of children allocated to the rejected subgroups was also similar to those reported elsewhere. However, gender distributions in the aggressive-rejected and withdrawn-rejected subgroups were significantly different and the direction of this imbalance appeared contrary to other studies. Males comprised only 37% of the aggressive-rejected sample but comprised 76% of the withdrawn-rejected group. Contrary to expectations, withdrawn behaviour was found to be more strongly associated with low social acceptance among males while aggressive behaviour was more strongly associated with low social acceptance among females. The extent to which the trend found in this sample reflects sampling differences in Australian and North American cultures is not clear. The gender imbalance between the aggressive-rejected and withdrawn-rejected subgroups and the direction of this imbalance may have had some influence on group differences in the emotion variables. Posthoc analyses also

explored the relationship between emotion processes and anger expression within the aggressive-rejected subgroup and average groups. Emotional awareness was found to be significantly related to anger expression in the normal group. In the aggressive-rejected subgroup, anger expression was related to defensive processes.

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Chapter One

OVERVIEW OF THE INTRODUCTION

> *An important agenda for research on the etiology and prevention of child mental health problems involves understanding individual differences in emotionality that distinguish psychopathology from more adaptive functioning and identifying the processes by which adaptive emotionality becomes associated with risk, maladjustment and psychopathology (Cole, Michel & Teti, 1994, p 74).*

Researchers have known for many years that children who are rejected by their peers are at-risk for poor mental health outcomes (Cowen, Pederson, Barbigian, Izzo, & Trost, 1973; Roff, Sells, & Golden, 1972; Ullman, 1957). An impressive volume of research has accumulated in this area, predominantly focusing on the cognitive and behavioural correlates of risk among rejected children. It is understood that significant differences exist within rejected groups and that these differences are associated with distinct risk trajectories. Current risk studies focus on subgroups of rejected children. There has been relatively little investigation of emotion variables in relation to rejection in children, despite well-established links between emotion and mental health in general (e.g., Pennebaker, 1993). The present study begins to address this gap with an exploration of the emotion styles of rejected subgroups of children. Given the paucity of research in this area, there is a need for breadth in exploring the emotion field. The emotion style concept assists this goal because it is a global construct and brings together a range of emotion domains more commonly conceptualised in disparate fields. Two areas of emotion style are explored in the present research and these are emotion experiences and emotion processes. Explorations of emotion experience include assessments of depression, anxiety, positive and negative emotions and anger expression. Investigations of emotion processes focus on assessments of denial and repression, rejection sensitivity and emotional awareness. These domains are introduced in greater detail in subsequent

chapters. The brief overview of peer rejection research that follows highlights why a greater understanding of the emotion styles of rejected subgroups is so important.

PEER REJECTION RESEARCH

The peer relations field spans over 70 years. Early interventions for unpopular children were broad-based and targeted children who were frequently heterogeneous in their behavioural presentation and cognitive style. It appears that these interventions were not effective for all rejected children (Bierman, Miller, & Stabb, 1987; Schneider, 1992). Specifically, it was found that the short term effectiveness of these programs was only moderate and was strongly dependent on the initial diagnostic condition (i.e., withdrawn children fared better than aggressive children) (Bierman et al., 1987; Schneider, 1992). As the field progressed research attention turned to the significance of heterogeneity among rejected groups. Evidence of distinct subgroups within rejected groups has steadily grown. It has become increasingly clear that effective interventions for rejected children need to target the distinct needs and difficulties of different subgroups (French, 1990; Lochman, Coie, Underwood, & Terry, 1993). A more comprehensive understanding of subgroup differences and distinct needs will be required before such programs are possible (Hecht, Inderbitzen, & Bukowski, 1998).

Research exploring the heterogeneity among rejected groups has focused mainly on the antecedents, the correlates and the consequences of rejection. Relations between rejection, behaviour and cognition have been particularly well researched. Distinct rejected subgroups have emerged based on predominant co-occurring behaviour (e.g., aggression and / or withdrawal) (Cillessen, Van IJzendoorn, Van Lieshout, & Hartup,

1992; French, 1988, 1990). Further research has elaborated this fundamental distinction and there is now awareness of subgroup differences in several important domains. These include social experiences (Boivin, Cote, & Dion, 1991; Hughes, Cavell, & Grossman, 1997; Pellegrini, 1998), long-term outcome (Cillessen et al., 1992; Lochman & Wayland, 1994; Rubin, LeMare, & Lollis, 1990; Vitaro, Tremblay, Gagnon, & Boivin, 1992) and self-report profiles (Asher, Zelis, Parker, & Bruene, 1991; Boivin, Thomassin, & Alain, 1989; Boivin, Poulin, & Vitaro, 1994; Parkhurst & Asher, 1992; Patterson, Kupersmidt, & Griesler, 1990).

Despite advances in awareness of heterogeneity among rejected subgroups, little is known about why these differences occur. The distinct self-report profiles of rejected subgroups provide an example of these puzzling gaps. All rejected children, irrespective of subgroup, are highly disliked by their peers. One could expect that in the face of aversive peer sentiment, rejected children would report similar experiences of distress and low esteem. Yet the self-reported perceptions and emotional experiences of rejected subgroups appear to differ markedly. The profile of the withdrawn-rejected and aggressive-withdrawn-rejected subgroups exemplify the experiences of the "victim", as reflected in reports of greater loneliness and lower self esteem when compared to non-rejected children. On the other hand, the profile of the aggressive-rejected group exemplifies a well-liked child. A core question is why the aggressive-rejected subgroup reports as though not rejected while other rejected subgroups are clearly distressed. This is the subject of the present research and leads to a focus on emotion style.

LINKING PEER REJECTION AND EMOTION STYLE

The concept of emotion style explored in the present study is adopted from Cole et al.'s (1994) account of dimensions of emotion regulation and dysregulation from a clinical perspective. Two key interrelated factors are believed to underpin an individual's emotion style; self-regulatory capability (e.g., the ability of individuals to identify, monitor and regulate their emotions, Thompson, 1990a) and the developmental environment in which emotion regulation patterns stabilize and grow (Booth, Rose-Krasnor, & Rubin, 1991; Dodge, Pettit, Bates, & Valente, 1995; Schultz, Izard, & Ackerman, 2000; Stoker, 2002; Thompson, Flood, & Lundquist, 1995).

Two areas of emotion style are addressed and these are emotion experiences and emotion processes. The aims of investigation in these two areas differ. Little research has focused on the emotion experiences of rejected subgroups and a more thorough picture of the everyday emotion experiences of rejected subgroups is sought in this research. Research to date suggests that self-reports from the aggressive-rejected group appear to reflect few indications of distress, despite the aversive nature of their social rejection (Boivin, Thomassin, & Alain, 1989; Parkhurst & Asher, 1992; Williams & Asher, 1991). This research seeks to explore this area more thoroughly. Investigations of emotion processes seek to understand some of the potential processes which may account for the low distress levels reported by the aggressive-rejected group. Of the two areas of emotion style, emotion experiences have received the greater research attention in the peer rejection field, albeit still limited.

Early research in this area focused on children's experiences of loneliness and are of limited utility to the present study because rejected subgroups were not identified (e.g., Asher & Wheeler, 1985; Cassidy & Asher, 1992). Over the past decade researchers have begun to investigate experiences of clinically oriented emotions among rejected subgroups. These investigations have focused almost exclusively on children's reports of depression (e.g., Boivin et al., 1994; Hecht et al., 1998). A greater understanding of the emotional experiences of rejected subgroups is clearly required. Moving in this direction, the present study will explore reports of depression and anxiety, anger expression style as well as range of other positive and negative emotions.

Four process-related variables are explored in this research. Recent research has drawn links between peer rejection and the stress and coping field (e.g., Zakriski, Jacobs, & Coie, 1997). This development has facilitated a process perspective of the self-report profiles of rejected subgroups. Of particular interest to this research have been links between the profiles of particular subgroups and coping style (e.g., Zakriski et al., 1997). The present study will extend this process perspective further by exploring self-reports of denial and repression.

The present study will also explore the presence of a defensive coping style known as rejection sensitivity. Conceptually this construct links with both the self-regulatory and environmental dimensions purported to underlie emotion styles. While the bulk of rejection sensitivity research has largely targeted adult relationships (e.g., Downey & Feldman, 1996; Downey, Khouri, & Feldman, 1997), more recent investigations have been extended to child populations (e.g., Downey, Freitas, Michaelis, & Khouri,

1998; Duzman, 2005). The present study explores the presence of rejection sensitivity among rejected subgroups – specifically, aggressive-rejected, withdrawn-rejected and nonaggressive-nonwithdrawn-rejected, neglected and average status groups.

This research also focuses on the area of emotional competence. Early investigations in the competence field assessed the relationship between emotional and social competence and explored skills such as children's ability to encode and / or decode facial expressions (e.g., Zuckerman & Przewuzman, 1979; Manstead & Edwards, 1992). These early studies did not identify rejected subgroups and many did not identify a rejected group. However, the results from these studies did suggest that children who have trouble with their peers were generally less emotionally competent. More recent studies have continued to explore the relationship between emotional competence and social competence (e.g., Custrini & Feldman, 1989; Eisenberg & Fabes, 1992; Eisenberg, Fabes, Murphy, & Maszk, 1995), yet few have identified rejected subgroups. Emotional awareness is one component of emotional competence. No studies to date have examined the extent to which the low level of distress reported by the aggressive-rejected group reflects low levels of emotional awareness. The lack of an established measure to assess emotional awareness in children has contributed to this oversight. A major component of the present study involves the development of a measure to assess emotional awareness in children.

RESEARCH OVERVIEW

Chapters two through four bring together the two fields of peer rejection and emotion style.

Chapter Two focuses on the heterogeneity among rejected groups. This chapter aims to provide an overview of the differences that have emerged in rejection research between the aggressive-rejected subgroup and other groups, primarily the withdrawn-rejected subgroup. Particular attention is given to self-report differences between these two rejected subgroups. It is clear from this review that relatively little attention has focused on self-reports of emotional experiences and emotional functioning, particularly in relation to rejected subgroups. What little work has been done suggests that the aggressive-rejected subgroup reports surprisingly little emotional distress in relation to their rejection status.

The concept of emotion style is introduced in Chapter Three. An outline of this concept and its potential contribution to rejection research is provided. The first area of emotion style, emotion experiences, is also explored in this chapter. While research indicates that the aggressive-rejected group report little emotional distress, there is little known about the everyday emotional experiences of this group and rejected subgroups in general. It is argued in this chapter that a more general picture of emotional experiences and emotion regulation is necessary and this will provide a broader base upon which to understand the self-report profile of the aggressive-rejected subgroup.

Chapter Four focuses on the emotion processes area of emotion style. Potential explanations for the low distress levels reported by the aggressive-rejected group that have been suggested by previous researchers are examined in this chapter. Some of these are included in the present focus on emotion processes and these are the defensive coping strategies of denial and repression, rejection sensitivity and emotion awareness.

Chapter Two

DIFFERENCES BETWEEN REJECTED SUBGROUPS

Studies drawing links between poor peer relationships in childhood and mental health difficulties in adulthood began over 70 years ago. In the early 1970s the publication of two seminal papers linking adult psychopathology to peer difficulties in childhood strengthened interest in this field (i.e., Cowen et al, 1973; Roff et al, 1972). In more recent times, the identification of subgroups of rejected children has provided further insight into the relationship between peer rejection and poor adjustment in later years. Differences between rejection subgroups have emerged in a number of areas including, rejection continuity, risk trajectories and self-report profiles. A detailed summary of these findings follows with a particular focus on the self- reported perceptions and emotion experiences of rejected subgroups.

HISTORICAL DEVELOPMENTS IN PEER RELATIONS RISK RESEARCH

As understanding of the correlates and consequences of peer rejection has increased, the focus of risk status has also shifted. Early peer relations research utilised a two-dimensional distinction and identified popular and unpopular groups. Further developments saw the identification of distinct subgroups within the unpopular group and the rejected and neglected groups emerged. Both the rejected and neglected groups were considered unpopular, yet there were important differences between the two. The rejected group attracted a relatively high number of negative nominations from their peers; that is, they were actively disliked. In contrast, the neglected group attracted very few nominations from their peers, either positive or negative and was not so much disliked as simply overlooked.[1] A further group emerged which attracted both popular and unpopular nominations from peers and was labeled the "controversial" group.

With increasing research interest in these social group distinctions, evidence of heterogeneity within the rejected group grew (e.g., French & Waas, 1985). The

[1] The distinction between these two groups remains important today. Inclusion of the neglected group is generally recommended in rejection research because this group provides an important point of comparison with the rejected group (Parker & Asher, 1987). While both groups are unpopular with their peers, it is the rejected group that is regarded as at-risk.

identification of rejected subgroups based on predominant problematic behaviour (e.g., aggression or withdrawal) was an important milestone in rejection research. Over the past twenty years, several subgroups of rejected children have been identified and include the aggressive-rejected, withdrawn- or submissive-rejected, aggressive-withdrawn-rejected and nonaggressive nonwithdrawn-rejected subgroups. Contemporary peer relations studies often identify some or all of the broader social status groups of popular, average, neglected, controversial and rejected. Studies focusing on risk also identify rejected subgroups; the specific subgroups identified will depend on the research focus.

Before moving to a review of subgroup differences, it is important to acknowledge the potential impact of these evolving group distinctions on research generalisability. For instance, early research findings were based on a unitary rejected group that it now understood to have been frequently heterogeneous in nature (e.g., Asher & Wheeler, 1985; Coie & Kupersmidt, 1983; Dodge, Coie, & Brakke, 1982). The relationship between earlier findings and later research employing more refined subgroup classifications is not clear. In addition, many of the earlier studies focused on males only (e.g., Coie & Dodge, 1983; Dodge & Frame, 1982; Putallaz, 1983) and the extent to which findings are generalisable to females is not always known. Notwithstanding these caveats, earlier findings provided a broad-based understanding of risk and were pivotal in providing direction and impetus for more discriminative risk studies in later years.

An overview of the primary differences that have emerged between rejected subgroups follows. The present research is chiefly interested in the aggressive-

rejected group. This review takes account of all relevant rejected subgroups because a broader coverage will help place the aggressive-rejected group in context and highlights the key differences that have emerged between this group and other rejected subgroups, in particular, the withdrawn-rejected subgroup.

PRIOR FINDINGS OF SUBGROUP DIFFERENCES

1. Behaviour

Persistent rejection from classmates affects between 10-15% of children (Asher & Hopmeyer, 1997). Rejection appears to primarily result from a child's social behaviour (Coie, Dodge, & Kupersmidt, 1990), in particular from aggression and social withdrawal. The relationship between behaviour and rejection varies as a function of age and gender. Among younger and preadolescent age groups, rejection appears related to aggression, hyperactivity and disruptiveness. By adolescence, overt aggression plays a less significant role, with some indication that emotions have a more prominent role (Coie et al., 1990). The relationship between rejection and aggression also appears stronger for boys (Coie et al., 1990; Dodge, 1983). Behaviours such as aggression and disruptiveness are rarely present in more than 50% of rejected children (Bierman, 1986; Coie & Koeppl, 1990; French, 1988; Williams & Asher, 1987).

Unlike aggression, withdrawn behaviour becomes more salient to children with increasing age (Ledingham & Schwartzman, 1984; Younger, Gentile, & Burgess, 1993). Relations between rejection and withdrawal are apparent by middle childhood (Rubin et al., 1990) and this relationship strengthens into adolescence. Prior to middle childhood, social withdrawal goes largely unnoticed. The relationship between

rejection and withdrawal appears stronger for females (Coie et al., 1990). While aggressive and withdrawn behaviours are found in approximately two thirds of rejected children, there remains a sizable group who are either aggressive or withdrawn and not rejected, or rejected and neither aggressive nor withdrawn (see Appendix A-1). Behaviour alone does not appear to account for social rejection among children.

2. Rejection continuity

Many rejected children face repeated peer rejection over time (Coie & Dodge, 1983). Around 45% of rejected children remain rejected after one year. After two and three years, 34% remain rejected while 30% remain rejected after four years. Rejection continuity is particularly associated with aggression; that is, those who remain rejected are more likely to be aggressive (Cillessen et al., 1992; Vitaro et al., 1992). This is consistent with Olweus' (1979) review which found that aggressive behaviour was highly stable and only slightly lower than the stability of performance on intelligence testing. Given that aggressive-rejected children are likely to be rejected for longer, and given that aggression has a deleterious impact on others as well as self, it is not surprising that of all rejected subgroups, the aggressive rejected group has received the greatest research attention.

Continuity of rejection status is stronger for children from grade five but weaker for children from grade three. This may be a consequence of lower reliability of sociometric assessment and greater instability of sociometric status among younger children (Coie & Dodge, 1983). To avoid false positives, it is generally recommended

that rejected status be identified among children in grade four or above (Coie, Rabiner, & Lochman, 1989).

3. Projected outcomes

Studies examining the projected outcomes for peer rejected children have been numerous. Interpretations of these findings are also somewhat complex. The reasons for this include variability in the specificity of outcome (e.g., internalising versus externalising disorders) and differences in informant source (e.g., self, parent, teacher, peer) (Coie, Lochman, Terry, & Hyman, 1992). The developments in at-risk group classifications mentioned at the beginning of the chapter, have also contributed to this complex picture.

Earlier longitudinal studies tended to focus on the outcomes associated with rejection. Some of these also considered the contribution of behaviour, in particular aggression. For example, links between peer rejection and a number of specific poor adjustment outcomes were reported some decades ago. These include early school drop out (Asher et al., 1991; Kupersmidt, 1983; Ullman, 1957), delinquency (Kupersmidt, 1983; Parker & Asher, 1987; Roff et al., 1972), and psychopathology (Cowen et al., 1973; Roff et al., 1972). Recent longitudinal studies have explored the outcomes for rejected subgroups. These suggest aggressive-rejected children are at-risk for externalising problems and that withdrawn-rejected children are at-risk for internalising problems. For instance, a relatively brief long-term study of outcome which identified both rejection and behaviour, contrasted assessments of children's sociometric ratings, peer assessments of aggression and isolation and self-appraisals of social competence from grade two to grade five. Predictive links between rejection

and aggression and later externalising problems were evident, while internalising problems in grade five were significantly related to early social difficulties such as poor peer acceptance, social isolation and perceptions of social incompetence (Hymel, Rubin, Rowden, & LeMare, 1990)

Differential outcomes for rejected subgroups may be in part explained by the specific behaviours that distinguish these subgroups. That is, independent of rejection status, aggressive disruptive children are at risk for externalising disorders (Hymel et al., 1990; Loeber & Dishion, 1983; Olweus, 1979). For example, in Loeber and Dishion's (1983) study, one of the principal predictors of delinquency was found to be initial conduct problems. Extremely withdrawn children also appear at risk for internalising problems, independent of rejection status (Rubin et al., 1990). Other researchers have suggested that for rejected children in particular, the relationship between behaviours and specific pathways to maladjustment may also be influenced by differences in children's appraisal of their social situation (e.g., their level of satisfaction with peer relationships) and associated affective response (Hymel & Franke, 1985). It is from this domain that the focus for the present study was derived.

4. Emotions and perceptions: The beginnings of emotion research

Until recently, relatively little was known about the characteristics that might distinguish rejected subgroups aside from social behaviour (Hymel, Bowker, & Woody, 1993). This has been replaced by a burgeoning interest in the perceptions and affective responses associated with social behaviour among rejected and nonrejected groups.

Preliminary investigations in this area centred on children's self reports of loneliness (e.g., Asher, Hymel, & Renshaw, 1984; Asher & Wheeler, 1985). Researchers found that while both rejected and neglected children were unpopular with their peers, rejected children reported significantly higher levels of loneliness while neglected children did not (Asher & Wheeler, 1985). Heterogeneity with regard to loneliness within the rejected group was also marked (Asher, Parkhurst, Hymel, & Williams, 1990). Greater focus on subgroup distinctions revealed that children classified as experiencing similar social difficulties on the basis of external assessments (e.g., all children were socially rejected by their peers), provided self reports reflecting feelings and perceptions of their social standing that were highly variable. That is, some children reported negative feelings and self-perceptions consistent with being rejected, while others did not.

Studies exploring self-reports of affect and perception have focused on different rejected subgroups. Some studies have distinguished between rejected children on the basis of aggression and have identified two rejected subgroups - aggressive-rejected and nonaggressive-rejected. In such situations, the nonaggressive-rejected subgroup was potentially comprised of the withdrawn-rejected and nonaggressive-nonwithdrawn-rejected subgroups (e.g., Zakriski & Coie, 1996). Other studies have distinguished between rejected children on the basis of aggression and withdrawal, and identified aggressive-rejected and withdrawn-rejected / submissive-rejected subgroups (e.g., Hymel et al., 1993; Parkhurst & Asher, 1992). The present study has adopted this latter approach.

The self-report profile of the withdrawn-rejected subgroup reflects psychological distress. The self-report profile of the aggressive-rejected subgroup appears to be starkly different. For instance, the withdrawn-rejected group have been found to report greater loneliness and social dissatisfaction, a more negative self concept, lower social competence and lower self esteem compared to other social status groups (Asher et al., 1990; Boivin & Begin, 1989; Cassidy & Asher, 1992; Parkhurst & Asher, 1992; Rubin, 1985; Williams & Asher, 1987). In contrast, the aggressive-rejected group appear no more lonely or socially dissatisfied than children of average social status and have reported at least average levels of self esteem (Boivin et al., 1989; Parkhurst & Asher, 1992; Williams & Asher, 1987). Evidence suggests that the aggressive-rejected subgroup overestimates competence in domains such as social competence when compared to the withdrawn-rejected subgroup or average status group (Hymel et al., 1993; Patterson et al., 1990). In addition they reported levels of peer acceptance comparable to average status children (Patterson et al., 1990; Zakriski & Coie, 1996).

Subgroup differences have also been noted in the perceptions of rejected children toward their relationships with peers. For instance, Rabiner and Keane (1991) found that the nonaggressive-rejected group report more negative beliefs about their relationships with peers while the aggressive-rejected group report positive beliefs about peer relationships, when compared to non-rejected children. Evidence also suggests that nonaggressive-rejected children care less about sustaining peer interactions while aggressive-rejected children care less about peers' feelings (Rabiner & Gordon, 1993). Submissive-rejected children have been found to report significantly more concern about being humiliated and rejected by their peers

compared to children of average social status whereas aggressive-rejected children did not differ from the average group (Parkhurst & Asher, 1992). Withdrawn-rejected children reported higher intentions to seek help from a friendship expert were one available and aggressive-rejected children reported help seeking as unlikely (Asher et al., 1991). This finding is consistent with other evidence suggesting aggressive-rejected children report as though they are socially accepted (e.g., Zakriski & Coie, 1996).

The self-report profile of the neglected group is in stark contrast to that reported by the withdrawn-rejected subgroup and is in some regards similar to that reported by the aggressive-rejected group. That is, the neglected group self-reported few symptoms of distress and their self report profile was comparable to the normative average status group on many dimensions (Asher & Wheeler, 1985; Boivin et al., 1989). The similarity in self reports between the neglected and aggressive-rejected groups is surprising given the fundamental differences between the groups in relation to peer sentiment. That is, while neither group is popular with their peers, the aggressive-rejected group is actively disliked by their peers and the neglected group is not. They are simply "unseen". The self-report profile of the neglected group suggests that being overlooked by peers does not adversely affect self-perception and emotional well-being. The question remains; why does the aggressive-rejected group report as though they are not rejected?

In recent years researchers have begun to focus on emotion experiences more closely aligned to psychopathology. It is these studies which have particular relevance to the present study. Boivin et al., (1994) compared the depression profile of four rejected

subgroups (aggressive-rejected, withdrawn-rejected, aggressive-withdrawn-rejected and nonaggressive-nonwithdrawn-rejected) and the neglected children to the average status group. Total depression scores (CDI; Kovacs, 1983), depressive symptomatology (Dimensions of Depression Profile for Children and Adolescents; Harter & Nowakowski, 1987) and loneliness (Loneliness and Social Dissatisfaction Questionnaire; Asher & Wheeler, 1985) were assessed. The withdrawn-rejected subgroup was found to report higher total depression scores, greater depressive symptomatology (lower energy / interest scores) and greater loneliness and social dissatisfaction when compared to the normative group. The profile of the comorbid aggressive-withdrawn-rejected group was similar, reporting higher total depression scores, greater depressive symptomatology (negative mood / affect) and greater loneliness and social dissatisfaction when compared to the normative group. Contrary to expectations, the aggressive-rejected group reported higher total depression scores compared to those reported by the average group. However, their reports of specific depressive symptoms (low mood / affect or low energy / interest) and loneliness were not significantly different from the average group. The neglected group was not significantly different from the normative group on any of the depression dimensions.

Boivin and colleagues (1994) then examined the relationship between depression, rejected status and behavioural problems (aggressive, withdrawal or asymptomatic). The purpose of these investigations was to explore whether depression was more closely related to rejection or behaviour. In the first stage of this investigation Boivin and colleagues (1994) explored reports of depression among non-rejected children. The depression profiles of non-rejected children with and without behavioural symptoms were compared. Three groups were involved - aggressive, withdrawn and

behaviourally asymptomatic. The aggressive group reported higher total depression scores and greater depressive symptomatology (lower happiness scores) compared to the behaviourally asymptomatic group while the depression scores reported by the withdrawn group were not different from those reported by the behaviourally asymptomatic group. These results indicated that independent of rejection, aggressive children reported higher levels of depression compared to other children who were not rejected while withdrawn children did not.

In combination with earlier findings, these results suggested that aggressive children report elevated depression levels whether they were rejected or not. To clarify this issue further, in the second stage of this investigation Boivin and colleagues (1994) compared the depression profiles of behaviourally symptomatic children, with and without rejection. Two pairs of groups were contrasted: aggressive non-rejected with aggressive-rejected and withdrawn non-rejected with withdrawn-rejected. The depression profiles of the aggressive and aggressive-rejected groups did not differ. In comparison, the withdrawn-rejected group reported higher total depression scores, greater depressive symptomatology (lower mood/ affect and energy/interest scores) and greater loneliness and social dissatisfaction compared to the withdrawn non-rejected group. Boivin and colleagues (1994) concluded from these findings that the depression reported by the withdrawn-rejected and aggressive-withdrawn-rejected groups appeared to be associated with their rejected status while the depression reported by the aggressive-rejected group may be related more to factors independent of the school setting, such as family relationships. Providing some support for this latter view, Patterson et al., (1990) found that aggressive-rejected children reported

the least supportive relationships with their fathers when compared to the other rejected subgroups.

Hecht et al., (1998) also investigated self-reports of depression among peer rejected subgroups. As with Boivin et al's (1994) study, four rejected subgroups (aggressive-rejected, submissive-rejected, aggressive-submissive-rejected and nonaggressive-nonsubmissive-rejected), the neglected and average status group were identified. Between-group differences in total depression scores and depressive symptomatology were evaluated using the total score and subscale scores respectively of the Children's Depression Inventory (CDI; Kovacs, 1983).

Contrary to Boivin et al's (1994) study, an overall between-group difference in total depression scores was not found. However, evidence of subgroup differences on depression symptom subscales did emerge, including some unexpected findings. Interestingly, the aggressive-rejected group was found to report higher levels of interpersonal difficulties than the average, neglected or submissive-rejected groups. At first glance this finding might appear inconsistent with the general orientation of this subgroup to report as though not rejected. However, the aggressive-rejected group have been found to report conflict with peers in other studies (e.g., Patterson et al., 1990). This issue is considered in greater depth further on. Unexpectedly, the aggressive-rejected group also reported greater symptoms of ineffectiveness compared to the submissive-rejected and average groups. This result was contrary to prior evidence indicating that aggressive-rejected children do not perceive themselves more negatively than average status children (Boivin et al., 1989; Parkhurst & Asher, 1992). Submissive-rejected children were found to report greater symptoms of

anhedonia compared to aggressive-rejected and average groups. The neglected group also reported greater symptoms of anhedonia compared to those reported by aggressive-rejected and average children. This result was in contrast to findings which indicate that neglected children are comparable to children of average status on self reports of emotional distress (Asher & Wheeler, 1985; Bell-Dolan, Foster, & Christopher, 1995; Boivin et al., 1994).

A number of findings emerged in the Hecht et al (1998) study which were contrary to the trend of prior findings among rejected groups. However, research in this area has just begun and further replication is clearly required. The present study will explore subgroup differences in self-reports of depression, also using the CDI for total and subscale scores. In addition, the present study will extend prior research by exploring self-reports of anxiety among rejected subgroups, focusing on the total score and subscale scores of the Revised Child Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978).

SUMMARY

Little research has focused on the emotional functioning of rejected subgroups and it is therefore difficult to understand the counterintuitive self-report profile of the aggressive-rejected subgroup. It is also difficult to estimate the extent to which the emotional experiences and functioning of the aggressive-rejected group differs from other groups, in other areas. An exploration of emotion styles will begin to provide some of this much-needed information. Specifically this focus will explore how the emotional experiences and processes of the aggressive-rejected group compare to other rejected groups who share similarly negative social experiences and how they

compare to other groups who are not regarded to be at long-term risk. The following chapter introduces the concept of emotion style and the emotion experiences that are explored in the present study.

Chapter Three

WHY LOOK AT EMOTION STYLES?

There has been scant exploration of emotion variables among rejected subgroups. As a result, there is little information available to help explain why the aggressive-rejected subgroup appears to report so little distress. The present study aims to provide a broad-base of information about the emotional functioning of the aggressive-rejected subgroup and how this compares to other sociometric groups. The concept of emotion style facilitates this goal and is introduced in the first section of this chapter. There are two areas of emotion style explored in this research. The first of these, emotion experiences, is discussed in the second half of this chapter.

Views regarding the role of emotion in the development, maintenance and treatment of mental disorder vary widely. Some have viewed emotions as little more than markers of psychological dysfunction. Others have held the view that specific emotion patterns underlie some disorders, and that these emotion styles are discernible from the emotion patterns found in non-disordered children (Cicchetti & Schneider-Rosen, 1984; Cole et al., 1994; Gray, 1987; Thompson & Calkins, 1996). Proponents of this latter view believe that an understanding of emotion styles - their nature, their foundation and the ways particular styles support dysfunction, is fundamental to the successful treatment of these disorders. This premise underpins the present research focus on the emotion style of the aggressive-rejected group.

Disorders in which an understanding of emotion style is likely to be most beneficial are those with a strong affective component (Casey, 1996). High levels of aggressive and / or withdrawn behaviour characterize three of the rejected subgroups identified in this research and these behaviours suggest the presence of strong affect such as anger, fear or anxiety. These three rejected subgroups also appear to be at-risk for later adjustment problems such as delinquency and antisocial behaviour (Cole et al., 1992) and anxiety and depression (Cole & Carpentieri, 1990; Hymel et al., 1990). The emotion styles of these three subgroups – aggressive-rejected, withdrawn-rejected and

aggressive-withdrawn-rejected, a nonaggressive-nonwithdrawn-rejected subgroup and neglected group will be contrasted to the normative average group.

It is not clear whether differences in emotion style can be discerned between *at-risk* groups (e.g., groups at risk for but not yet fully manifesting the symptoms of disorder) and other non-risk groups. However, distinct patterns have emerged in the self-report profile of the aggressive-rejected group that are suggestive of adaptive or regulatory emotion processes. These are explored in greater depth further on in this chapter.

WHAT ARE EMOTION STYLES?

There are numerous components to emotion style. They include dimensions such as access to the full range of emotions, modulation of the intensity and duration of emotion, smooth shifts in emotion states and conformity with cultural display rules (Cole et al., 1994). The way in which any dimension of emotion style is expressed, varies from individual to individual.

The ways in which specific dimensions of emotion style are expressed may be adaptive in the short term but may have detrimental effects on regulation in the longer term. Similarly, they may be adaptive in a given context but maladaptive in other situations. Patterns of emotion style which interfere with other areas of functioning such as impulse control, attention or social relations are viewed by many as dysregulated (e.g., Cole et al., 1994; Garber & Dodge, 1991). As an example, the characteristics of under-regulated and over-regulated emotion are frequently manifested in the emotion styles of disordered populations and can be a useful dimension with which to conceptualise differences in emotion style. Unduly

restrained or avoided emotion experience is viewed as over-regulated while poorly controlled emotion experience or expression is viewed as under-regulated. Others have argued for greater recognition of the fact that "dysregulated" emotions serve an adaptive, regulatory purpose when understood in the particular context in which they occur (e.g., Thompson & Calkins, 1996). In line with this latter view, the current study will explore the differences in emotion style between the aggressive-rejected group and other groups with a view to understanding the function these various patterns may possibly serve in a rejection context.

Two areas of emotion style are explored in this study. The first to be discussed is emotion experience. The remainder of this chapter focuses on the emotion experiences examined in the present study.

THE EMOTION EXPERIENCES OF REJECTED SUBGROUPS

Evidence to date has suggested that either the aggressive-rejected subgroup report low levels of distress or that this group reports levels of distress which are comparable to those reported by aggressive children who are not rejected by their peers (Boivin et al., 1994). This is in contrast to the distress levels reported by the withdrawn-rejected subgroup which are over and above those reported by withdrawn children who are not rejected (Boivin et al., 1994). In other words, the aggressive-rejected group does not appear to report distress in relation to rejection from peers. The major focus in this area has been on children's reports of loneliness and more recently, on depression. A far greater exploration of the emotional experiences of rejected children is required. The present study will extend work in this area by exploring children's experiences of two clinically oriented emotion experiences– depression and anxiety. Self-reports of

anger regulation are also explored. This will provide information about the perceptions of the aggressive-rejected group toward their own behaviour and the extent to which these children perceive their externalized behaviour to result from anger. A range of everyday positive and negative emotions are also explored. Each of these areas is discussed in greater detail below.

Predominance of negative affect: Depression and Anxiety

Of all the dimensions of emotion style explored in the previous research, the experience and regulation of negative affect among rejected subgroups, in particular depression, has received greatest attention. Much of this work has been discussed in Chapter Two. However, a summary of results at this point will assist in framing these findings in relation to children's emotion styles.

Earlier peer relations research did not identify rejected subgroups and paid scant attention to self reports of emotion variables (e.g., Coie & Kupersmidt, 1983; Dodge, 1983; Dodge et al., 1982). The few studies that did examine these variables focused on constructs such as loneliness, negative self concept and low self esteem (e.g., Asher et al., 1984; Asher & Wheeler, 1985; Boivin et al., 1989), rather than more clinical symptomatology such as depression or anxiety. Recent research has begun to pay attention to rejected subgroups and to the clinical assessment of internalising symptoms, particularly depression. In most of these studies depression has been assessed using the Child Depression Inventory (CDI: Kovacs, 1983; e.g., Boivin et al., 1994; Hecht et al., 1998). In some of these studies self-reports of depression were evaluated in relation to both total depression scores and depression subscales, enabling a more fine-tuned discrimination of depressive symptomatology between

rejected subgroups. Comparisons have been made between four rejected subgroups and the neglected and average groups. Evidence of group differences in total depression scores has been equivocal (e.g., Boivin et al., 1994; Hecht et al., 1998).

Evidence that specific patterns of depressive symptomatology differ between groups has been stronger. For instance, in Boivin et al's study, the withdrawn-rejected and comorbid-rejected groups reported higher levels of specific depressive symptoms (low energy / interest and high negative mood / affect respectively) compared to the normative group while the aggressive-rejected group did not. In Hecht et al's study differences on specific subscales were found for some depression symptomatology. The aggressive-rejected group reported higher levels of interpersonal problems and unexpectedly, higher levels of ineffectiveness while the submissive-rejected and neglected groups reported higher levels of anhedonia.

The present study will explore the depression scores and reports of specific subsets of depressive symptomatology of the aggressive-rejected group and will compare these self-reports to those that are reported by the other rejected subgroups and the neglected and average status groups. Depressive symptomatology will be explored using the subscales from the Child Depression Inventory (CDI: Kovacs, 1983). This measure was used in both Boivin et al.,'s and Hecht et al.,'s studies, and the use of the CDI in the present research will facilitate direct comparison with these important studies.

(1) It is hypothesised that the aggressive-rejected group will report higher levels of interpersonal problems compared to the other rejected subgroups and neglected and average groups.

(2) It is also expected that the withdrawn-rejected group will report lower self-esteem compared to the average group whereas self-esteem in the aggressive-rejected group will be similar to the average group. This study will seek to explore Hecht et al.,'s (1997) findings further; in particular whether the aggressive-rejected group report higher levels of ineffectiveness compared to the other groups and whether the neglected group report higher levels of anhedonia compared to the levels reported by the aggressive-rejected and average groups.

This research will extend exploration of negative affect among these groups by also examining group differences in anxiety. This will involve a focus on total anxiety scores and specific subsets of anxious symptomatology. Anxious symptomatology will be assessed using subscales from the Revised Child Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978). This measure is of particular interest to the present study because in addition to providing an assessment of anxiety, this tool has also been used in combination with the Marlowe Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960) to assess repression in children (Fritz, Spirito, & Yeung, 1994). The topic of repression is discussed in greater detail in the following chapter. The RCMAS provides an assessment of the physiological symptoms of anxiety, symptoms of worry / oversensitivity, and social concern. A lie scale is also included in the measure. Little work has been done in the area of anxiety among rejected subgroups. However, prior research has established that the withdrawn-rejected and aggressive-withdrawn-rejected groups report higher levels of distress and behavioural withdrawal may be related to symptoms of anxiety. Evidence also suggests that while the aggressive-rejected subgroup may acknowledge that they

experience social difficulties with peers, they may also avoid emotional distress by attributing the cause of their social difficulties to external sources (e.g., Verschueren & Marcoen, 2002). Therefore,

(3) It is hypothesized that the aggressive-rejected group will report levels of anxious symptomatology, in particular physiological symptoms and worry / oversensitivity, similar to the average group whereas the withdrawn-rejected group will report higher levels than the average group.

(4) It is also hypothesized that the aggressive-rejected group will report similar levels of social concern as the average group whereas the withdrawn-rejected group will report higher levels of social concern.

Range of emotions

Access to the full range of emotions is generally regarded as necessary for optimal emotion regulation. The inability to access specific emotions and the predominance of other negative emotions are frequently demonstrated as co-occurring patterns (Cole et al., 1994). That is, when an individual's emotion style is dominated by a particular negative affect, that individual may also experience difficulty in accessing other emotions. Difficulties in recognising, experiencing or articulating other emotions may be as influential on emotion style as the predominant negative affect. For example, anger may be a characteristic feature of conduct disorder and subsequently targeted in intervention efforts, but reduced anxiety or guilt may also require attention (Cole et al., 1994).

Children's experiences of nine negative emotions are explored in the present study: *guilt*, *shyness*, *disgust*, *hostility* (self-directed), *shame*, *sadness*, *contempt*, *fear* and *anger*. Earlier investigations of negative affect have focused on self-reports of depression and loneliness. These constructs are more complex and multifaceted that the nine emotions explored in this research. Greatest overlap between these constructs and the emotions explored in this research appears evident with the emotion of *sadness*. On the basis of prior findings,

(5) It is hypothesised that aggressive-rejected children will report levels of sadness comparable to the average group while the withdrawn-rejected and aggressive-withdrawn-rejected groups will report higher levels than the average group.

Aside from the constructs of depression and loneliness, there has been little empirical investigation of negative affect among rejected subgroups. The association of a blunting coping style with the self-reports of the aggressive-rejected group does suggest that other negative emotions may also be under-reported (e.g., Zakriski et al., 1997). However, the exact nature of these patterns is far from clear. Of particular interest here are the aggressive-rejected group's reports of anger. Zakriski and Coie (1996) found that aggressive-rejected children interpreted ambiguous feedback from peers more positively than other groups. It is difficult to understand how this group could report in this manner if they also experienced the levels of anger associated with the biased perceptions and attributions of aggressive individuals. Therefore,

(6) It is hypothesized that the aggressive-rejected and aggressive-withdrawn rejected groups will report levels of anger higher than the average group while the levels reported by the withdrawn-rejected group will be similar of the average group.

Experiences of three positive emotions (joy, interest and surprise) are also explored in the present research. There has been no known investigation of positive affect among rejected subgroups, therefore the extent to which the aggressive-rejected group has access to positive emotions and how this compares to other groups, is not clear. Given that predominance of negative affect may be associated with a lack of access to positive emotions, it would appear that those groups who are known to report high levels of distress may also report less positive emotions. Therefore,

(7) It is hypothesised that the aggressive-rejected group will report levels of positive emotions similar to the average group while the withdrawn-rejected and aggressive-withdrawn-rejected group will report lower levels than the average group.

Anger expression style

While a considerable volume of peer relations research has accumulated regarding children's externalising symptoms, in particular, aggressive behaviour (Bierman, Smoot, & Aumiller, 1993; Boivin & Vitaro, 1995; Cillessen et al., 1992; Little & Garber, 1995; Waas, 1987; Warman & Cohen, 2000), far less attention has been given to children's reports of anger and anger expression. There are numerous conceptualisations of anger expression, but those most commonly distinguished by researchers include anger-out, anger-in and anger-control (Furlong & Smith, 1994). Anger-out involves externalising, potentially aggressive behaviour while anger-in

includes the suppression or non-expression of anger. Anger-control is characterised by the implementation of coping strategies such as reflection or problem-solving to resolve the conflict or frustration (Musante, Treiber, Davis, Waller, & Thompson, 1999). These expression styles are not presumed to be mutually exclusive and individuals may use different expression styles in different contexts or at different times (Jacobs, Phelps, & Rohrs, 1989).

The ways in which children regulate their anger have important repercussions for social and behavioural interactions. Poorly regulated experiences of anger are often associated with low social competence (Dodge, 1983; Little & Garber, 1995), low emotional competence (Casey, 1996; Eisenberg et al., 1995) and poor emotion regulation (Casey, 1996; Eisenberg et al., 1995; Eisenberg, Fabes, Nyman, Bernzweig, & et al., 1994). Poorly regulated anger experiences are also frequently demonstrated in behaviours often associated with social rejection (e.g., aggression). However, it is important to distinguish here between aggression and the experience and expression of anger. There is overlap between these concepts; for instance, it seems likely that children who experience anger more frequently or more intensely, are likely to have greater difficulties regulating or controlling their anger. However the relationship between aggression and anger is not straightforward, as aggressive behaviour is not necessarily the result of poorly regulated anger experiences and aggression may occur in the absence of anger (Olweus, 1994).

What is clear is that aggressive-rejected children are aggressive. What is not clear is the extent to which this behaviour is a reflection of anger experiences that are poorly regulated and expressed outwardly. An exploration of anger expression styles will

provide information about the self-perceptions of the aggressive-rejected group toward their externalised behaviour and extent to which they report that this behaviour relates to experiences of anger. Verscheuren and Marcoen (2002) have argued that the aggressive-rejected group acknowledge social difficulties with others but attribute the cause of these difficulties to factors outside of themselves. Consistent with this view, it is expected that the aggressive-rejected group will also acknowledge their externalised expressions of anger.

(8) It is hypothesised that the aggressive-rejected and aggressive-withdrawn-rejected groups will report higher levels of anger-out expression compared to the average group while the withdrawn-rejected group will report levels similar to the average group.

SUMMARY

A more thorough exploration of the emotional experiences of the aggressive-rejected group will be undertaken in the present study. These emotional experiences will be compared to other rejected subgroups, the neglected and average group. The aim of these comparisons will be to clarify the extent to which the emotional experiences of the aggressive-rejected group differ from other groups who share similarly aversive social experiences, and differ from the emotional experiences of children who are not rejected by their peers. This broader approach to emotional experiences will allow us to understand if the aggressive-rejected group reports less distress only or whether there are differences in other areas of emotion experience. The following chapter turns to an exploration of some of the processes which may help explain the low distress levels reported by the aggressive-rejected subgroup in prior research.

Chapter Four

WHY MIGHT THE AGGRESSIVE-REJECTED SUBGROUP REPORT LESS DISTRESS?

According to the cognitive-behavioural model of adjustment disorders, stress is derived not from the situation itself but how the individual appraises it (Meichenbaum, Bream, & Cohen, 1984). Regardless of the validity of self perceptions, useful information is provided in terms of how rejected children report to regard their situation (Hymel & Franke, 1985). This chapter considers some of the potential reasons for why the aggressive-rejected subgroup might report less distress compared to that reported by the withdrawn-rejected subgroup.

EXPLAINING LOW DISTRESS IN TERMS OF PEER-RELATED FACTORS

Why do aggressive-rejected children self report as though they are not disliked? It has been suggested that aggressive-rejected children are actually unaware of peer sentiment and that their ignorance is the result of poor feedback from peers who fear retaliation (Coie, Dodge, Terry, & Wright, 1991; Hymel et al., 1993). However, evidence that aggressive children do receive aversive treatment from peers runs contrary to this claim (e.g. Hughes et al., 1997; Pellegrini, 1998). Support for the view that aggressive-rejected children are unaware of their social difficulties, or are reluctant to acknowledge their social problems, is equivocal. This issue is discussed in relation to defensive processes further on in this chapter. Briefly, some evidence suggests that aggressive-rejected children do acknowledge their social difficulties. For instance, in Hecht et al.,'s (1998) study the aggressive-rejected group reported more interpersonal difficulties than the average, neglected or submissive-rejected groups. Verscheuren and Marcoen (2002) found that while aggressive-rejected children did not report lower self-worth or competence, they did report lower levels of social acceptance.

Other studies have found that aggressive-rejected children report perceptions of competence that are inflated compared to objective assessments. For example, in Patterson et al.,'s (1990) study the aggressive-rejected group overestimated their social and behavioural competence compared to both peer and teacher assessments. Zakriski and Coie (1996) found that the aggressive-rejected group overestimated their own social acceptance but were able to realistically evaluate the social acceptance of others. These findings may suggest that the aggressive-rejected group acknowledge social difficulties, yet do not acknowledge their own contribution to these troubled relationships. However, it is also important to acknowledge that sociometric methodology differs widely across peer rejection studies. This includes differences in how sociometric status is identified and how social behaviour is measured (e.g., Cillessen & Mayeux, 2004). The approaches taken to identify the aggressive-rejected subgroup in the abovementioned studies also varied and it is possible that the composition of the aggressive-rejected subgroup may have differed slightly from study to study as a result. For a thorough discussion of variability in sociometric measurement, the reader is referred to Cillessen and Bukowski (2000). This issue is also discussed in greater detail in Chapter Seven of this thesis.

It has also been suggested that the aggressive-rejected subgroup report less distress because their peer experiences are relatively less aversive compared to the experiences of the withdrawn-rejected subgroup. There is some support for this position. While rejected children are more likely than other children to be victimised (Asher, Rose, & Gabriel, 2001), it would appear that withdrawn-rejected children are subject to more intense peer victimisation compared to aggressive-rejected children (Boivin et al., 1991). In contrast to aggressive-rejected children, withdrawn-rejected

children are subjected to more active peer disregard (being unable to get others to listen) and passive peer disregard (overlooked or left aside) (Boivin et al., 1991). Aggressive behaviour may also have positive consequences for the rejected child (Boldizar, Perry, & Perry, 1989). Aggressive rejected children receive high rates of reinforcement for their behaviour, in that the aggression often gets them what they want (Patterson, 1982). They are more likely to have friendships, belong to a peer group, albeit problematic, and receive some social support to offset the impact of rejection. Withdrawn-rejected children are more likely to be social isolates (Boivin et al., 1991).

Therefore, the experience of peer rejection may be significantly more adverse, pervasive and distressing for the withdrawn-rejected child. Yet this evidence does not sufficiently explain why in the face of significant peer difficulties, aggressive-rejected children report little congruent distress. Attention now turns to some of the process variables which may potentially account for these low distress levels.

EMOTION PROCESSES: REPRESSION, DENIAL & REJECTION SENSITIVITY

There are four emotion process variables explored in the present study. Three of these relate to self-protective coping mechanisms and these are repression, denial and rejection sensitivity. The fourth area is a competency-related variable – emotional awareness.

In the present study the terms repression and denial are used as descriptors of general defensive coping strategies and are not conceptualized as defense mechanisms in the psychoanalytic tradition. The concepts of repression and denial overlap considerably

and are discussed first. The construct of rejection sensitivity is broader in scope and more suitably describes a defensive coping style. Exploration of the rejection sensitivity concept follows the discussion of repression and denial. The concept of emotional awareness is explored after this.

A considerable volume of research has accumulated concerning the cognitive and behavioural strategies children adopt to protect themselves from the emotional consequences of adversity. Defense and coping mechanisms are two types of adaptational processes that have been found to make independent contributions to the prediction of adjustment for adults and children (Association, 1994, Axis V: Global Assessment Functioning; Erickson, Feldman, & Steiner, 1997). According to Cramer (1998) the primary criteria that differentiate coping and defense mechanisms are the degree of consciousness and intentionality in the processes. These distinctions are beyond the scope of the present study and differentiation between the concepts of coping and defensiveness is observed only in relation to how prior findings have been reported.

The function of both defense and coping processes is to protect the individual from emotions too difficult to tolerate (Cramer, 1998). While often adaptive in the short term, these strategies can become overly rigid, age inappropriate or promote poor outcomes. When this occurs, these processes may be viewed as maladaptive or dysregulated (Cole et al., 1994; Schibuk, Bond, & Bouffard, 1989). A brief introduction to coping style and how this has been applied to the self-reports of aggressive-rejected children follows. This provides a general background for a more

detailed account of defensive processes and their conceptualisation in the rejection literature.

Placed within the stress and coping literature, the self-report profile of the aggressive-rejected child typifies an avoidant (Roth & Cohen, 1986) coping style. According to this view, aggressive-rejected children adopt strategies to minimise, avoid or deny the aversive nature of their social predicament rather than confront and experience the reality of their rejection. The blunting strategies adopted by the aggressive-rejected child are seen as adaptive in the short term because they enable the child to regulate their emotional responses and avoid subjective distress (Zakriski et al., 1997). However, peer rejection is often a chronic condition, particularly when associated with aggression (Cillessen et al., 1992; Vitaro et al., 1992). Over long periods of time avoidance is viewed as a dysfunctional escape mechanism (Spivack & Shure, 1982) and a maladaptive style associated with poorer mental health outcomes and greater resistance to change (Cillessen et al., 1992; Coie et al., 1992; Suls & Fletcher, 1985). A number of defense strategies have been proposed in prior studies to account for the self-reports of aggressive-rejected children and these are consistent with this conceptualisation of an avoidant coping style.

Linking repression and denial to peer rejection

Cognitive and behavioural strategies that seek to avoid, minimise or convert emotions that are too difficult to tolerate are viewed as defensive (Cramer & Gaul, 1988). The appearance and use of defense strategies follows a developmental and hierarchical progression. While defense strategies are regarded as normal and adaptive (Cramer, 1991), they may also be associated with pathological (disease outcomes) or

pathogenic (disease producing outcomes) outcomes. Defense strategies which promote poor adaptational outcomes are viewed by some as indicators of emotion dysregulation (Cole et al., 1994) and regarded as pathological (Schibuk et al., 1989).

References to defensive processes such as denial have been evident in rejection literature for some time, albeit often in general terms. For instance, (Heider, 1958) claimed that high self-concept rejectees might deny lower competence or unconsciously exhibit a self-serving bias in order to protect or enhance self-esteem. Given the longevity of this interest, the paucity of empirical investigation in this field is somewhat surprising. One recent exception was Sandstrom and Cramer's (2003) study exploring the relationship between social adjustment and defense mechanisms. The results showed that rejected and neglected girls used more defenses following a rejection experience than popular and average girls. These findings support the view that defensiveness is associated with peer rejection, although the association with the neglected group was unexpected. Overall, there has been little exploration of the links between defensive processing and peer rejection. In addition, more recent studies that have been undertaken in this area have a number of limitations such as the inclusion of females only (Sandstrom & Cramer, 2003) or a limited range of rejected groups (Villanueva, 2001).

However, the findings discussed in the chapters thus far do suggest a potential role for defensive processes in the self-reports of the aggressive-rejected group. For example, despite pervasive and persistent negative experiences with peers, the aggressive-rejected report as though the impact of these experiences is negligible. They report average self esteem (e.g., Asher et al., 1990) and in general, report little emotional

distress in relation to their rejected status (e.g., Parkhurst & Asher, 1992). Domain-specific biases in the self reports of the aggressive-rejected group are also evident. That is, the perceptions of academic competence reported by this group tend to be realistic appraisals while perceptions of behavioural and social competence are likely to be inflated (e.g, Patterson et al., 1990; Verschueren & Marcoen, 2002).

As noted at the beginning of this chapter, there is some evidence to suggest that the aggressive-rejected group acknowledge difficulties with peers (e.g., Boivin et al., 1994; Hecht et al., 1998; Verschueren & Marcoen, 2002). At first glance this finding would appear to conflict with the perceptions and emotional responses of the aggressive-rejected group noted previously. Verschueren and Marcoen (2002) offer one potential explanation for this incongruity and it is that the aggressive-rejected group attributes the cause of their social difficulties to external factors. That is, they deny personal responsibility for their social difficulties and therein, avoid emotional distress. Verscheuren and Marcoen's (2002) interpretation that the aggressive-rejected subgroup acknowledge social difficulties but attribute the source of these difficulties away from themselves, highlights the importance of investigating the role of defensive processes further.

Denial and repression are two defense strategies examined in the present study. Denial is conceptualized as the tendency to summarily deny flaws or weaknesses in oneself (Cramer & Brilliant, 2001). Denial is regarded as a relatively simple defense and is seen often in the responses of younger children (e.g., four to six years). As age progresses denial declines in usage and is viewed by others with increasing negativity (Smith & Rossman, 1986). The tendency of aggressive-rejected children to deny

deficiencies in themselves, particularly in relation to difficulties in peer relationships, may be indicative of denial as a defense process. In the present study,

(9) It is hypothesized that the aggressive-rejected group will report higher levels of denial than the average group and the withdrawn-rejected group will report similar denial levels as those reported by the average group.

Repression is seen as a more specific defense and involves the denial of negative affect in oneself and in relation to others. The extent to which repression should be regarded as a defense or coping mechanism (that is, a conscious or unconscious process) remains under debate (Cramer, 1998). Steiner (1991) found the incidence of repression to be lower among younger groups (adolescents, 6% vs college students, 35%) although the incidence increased in younger clinical samples (adolescent psychiatric sample, 20%). Little is known about the extent to which the aggressive-rejected group report emotions in general and more specifically, how this group report negative affect. Prior evidence has indicated that aggressive-rejected children do not report negative emotions such as loneliness in situations where objective assessments would expect such emotions to arise (Asher et al., 1990; Cassidy & Asher, 1992). The aggressive-rejected group may report low negative affect because they repress these unpleasant emotions as part of a general avoidant coping style. Therefore,

(10) It is hypothesized that the aggressive-rejected group will have more repressors than the average group while the withdrawn-rejected group will have similar numbers of repressors as the average group.

A series of studies by Zakriski and Coie (1996) linked the topic of coping and defensiveness within the aggressive-rejected group and explored subgroup differences in children's willingness to acknowledge social rejection. The results showed that both aggressive-rejected and nonaggressive-rejected children overestimated how many children liked them, yet only aggressive-rejected children underestimated how many children disliked them. When it came to identifying the degree to which other children were liked or disliked by their peers, aggressive-rejected children were as accurate in their assessments as the other groups. In other words, aggressive-rejected children were able to accurately perceive negative feedback when it was directed toward other children, but showed a positive bias when similar feedback was self-directed.

In a further laboratory study aggressive-rejected, nonaggressive-rejected and average status children observed other children receiving ambiguous and negative feedback from an experimental confederate and later received similar feedback themselves. While all children rated self-directed feedback more positively than other-directed feedback, the discrepancy between self-directed and other-directed ratings was greatest for aggressive-rejected children. Aggressive-rejected children rated both ambiguous and negative self-directed feedback more positively. Zakriski and Coie (1996) concluded that aggressive-rejected children are hyposensitive to negative feedback and demonstrate self protective "errors" in their reporting of non-positive (e.g., ambiguous or negative) peer feedback. This conclusion is consistent with an ego-defensiveness account of why aggressive-rejected children report less loneliness (Asher et al., 1990). That is, aggressive-rejected children dismiss the importance of attachments and deny feelings of loss, in order to protect themselves.

It is difficult to reconcile the findings from Zakriski and Coie's three studies with the biases and deficits in perception that are commonly associated with aggressive individuals. Many of these are derived from Dodge and colleagues' social information processing model of aggression (Dodge & Somberg, 1987; Dodge, 1980; Dodge & Frame, 1982). According to this model, aggressive individuals show particular biases and deficits in their social information processing. Under conditions perceived as threatening to self, such as receiving ambiguous feedback from peers, aggressive individuals over-attribute hostile intent to others and show deficits in accurately interpreting other's intentions. In contrast to these expectations, Zakriski and Coie (1996) found that the aggressive-rejected group reported negative and ambiguous feedback from peers more positively than other groups. This would appear to suggest that the aggressive-rejected group differ in their perceptions and affective response to ambiguous feedback from others when compared to aggressive children who are not rejected. The concept of rejection sensitivity is used to explore this area further.

Linking rejection sensitivity to peer rejection

As a general observation, children vary markedly in their behavioural and affective responses to ambiguous feedback from peers (Asher et al., 2001). Some children respond to ambiguous feedback equably, with little apparent distress. Others exhibit heightened behavioural and emotional responses that appear difficult to inhibit. One factor proposed to account for these response styles is Rejection Sensitivity (Downey et al., 1998).

Rejection Sensitivity is conceptualized as a cognitive-affective processing disposition. The rejection sensitive individual holds chronic expectations of interpersonal rejection

and responds to rejection cues (real or imagined) with behavioural over-reactions and heightened responses of anger and / or anxiety. The Rejection Sensitivity construct typifies a defensive coping style.

This defensive pattern of expectations and perceptions is theorized to be derived from poor attachment experiences (Bowlby, 1980). According to attachment theory, when the needs of a child are consistently meet with rejection, the child becomes increasingly sensitized to rejection cues. The child becomes defensively vigilant for these cues and expectations of rejection heighten. When these children encounter rejection cues, real or imagined, minimal or ambiguous, they perceive intentional rejection and respond with heightened affect – anger and / or anxiety, and behavioural overreactions – aggression and / or withdrawal (Downey et al., 1998).

Research in this field has primarily focused on links between rejection sensitivity and parental rejection. Surprisingly, there has been little application of the rejection sensitivity construct to peer rejection research. What research has been undertaken suggests that rejection sensitivity among children is related to aggressive behaviour, interpersonal difficulties and poorer academic performance (Downey et al., 1998; Duzman, 2005). In a recent study Duzman (2005) found that rejection sensitivity was not directly related to peer reports of social acceptance and social rejection although self perceptions of social competence were found to predict some components of rejection sensitivity. Research in this area is sparse and at this stage it is not clear in what way Rejection Sensitivity relates to peer rejection.

Field studies suggest that peers frequently reject children who respond to ambiguous social interactions with hostility (Asher et al., 2001). Given the chronic nature of peer rejection experiences, particularly when accompanied by aggressive behaviour, it is likely that some rejected children may develop rejection sensitivity as a consequence of long-term rejection experiences (Downey et al., 1998). However, the extent to which peer rejected children are also rejection sensitive and whether this disposition varies between rejected subgroups is not clearly understood and will be explored in the present study.

Rejection sensitive individuals exhibit several cognitive deficits and distortions commonly found among aggressive populations (Dodge, 1980; Dodge & Frame, 1982). For example, rejection sensitive individuals demonstrate a lack of inhibitory control; they also offer fewer effective solutions to problems and generate fewer potential consequences. Rejection sensitive individuals also view neutral or ambiguous events as provoking and selectively attend to aggressive cues, especially when receiving feedback from others that is directed towards themselves (i.e., not when it is directed towards others). They attribute hostile intent to the actions of others and they feel they have the right to retaliate for perceived injustices. These defensive responses are driven by a working model of relationships embodying expectations of rejection which lead to perceptions of hostile intent and negative affective arousal (Downey & Feldman, 1996).

At face value, some overlap between sensitivity to rejection and actual rejection seems intuitive. Both aggressive-rejected and rejection sensitive aggressive individuals exhibit aggressive behaviour (Dodge et al., 1982; Dodge, Coie, Pettit, &

Price, 1990; Downey, Lebolt, Rincon, & Freitas, 1998). Both groups experience interpersonal problems and the difficulties faced by both groups are in some way linked to interpersonal relationships and rejection.

However, in at least two important domains the findings from the two research fields are incongruent. The first of these concerns interpretations of self-directed feedback. The rejection sensitive individual over-perceives hostile intent in the self-directed feedback received from others, and this is thought to set in motion a series of interrelated cognitive, affective and behavioural over-reactions. Findings in relation to the aggressive-rejected group could not be more different. Zakriski and Coie (1996) found aggressive-rejected children over-reported how well-liked they were, under-reported how much they were disliked and most significantly, interpreted ambiguous feedback from others which was directed towards the self, more positively than other groups. When ambiguous feedback was directed towards another, the aggressive-rejected group was more accurate in their interpretation.

Discrepancies also appear evident in the affective responses of these groups. The defensive perceptions, affect and behaviour which characterise rejection sensitivity are likely to result in the very rejection the individual fears (Downey & Feldman, 1996; Downey, Feldman, & Ayduk, 2000). Clearly rejection sensitive individuals are likely to suffer high levels of interpersonal and personal distress. In stark contrast, aggressive-rejected children self-report little distress and report self-perceptions akin to a well-liked child.

Exploration of the Rejection Sensitivity construct will help to clarify how aggressive-rejected subgroup responds to ambiguous feedback from others. Comparisons in rejection sensitivity will be made across the six sociometric groups. Attention will be given to both angry and anxious rejection sensitivity.

(11) It is hypothesized that the aggressive-rejected group will report similar levels of angry rejection sensitivity as the average group. Given the high levels of distress reported by the aggressive-withdrawn-rejected group it is expected that this group will report higher levels of angry rejection sensitivity than the average group.

(12) It is hypothesized that the withdrawn-rejected and aggressive-withdrawn-rejected groups will report higher levels of anxious rejection sensitivity than the average group.

It is also plausible that the low distress levels reported by the aggressive-rejected group are indicative of more general emotional competency deficits. It will therefore be important in this study to distinguish between poor emotional awareness and repression. While low emotional awareness is conceptualized as a pervasive deficit in the ability to experience and describe emotions, repression is viewed as a more discrete phenomenon and is associated with the exclusion of specific emotions (Lane, Sechrest, Riedel, Shapiro, & Kaszniak, 2000). The next section elaborates on the role of emotional awareness in explaining the low distress levels reported by the aggressive-rejected group.

EMOTION PROCESSES: EMOTIONAL AWARENESS

Emotional awareness involves the ability to identify, label and describe emotions felt by oneself and felt by others (Lane & Schwartz, 1987). This capacity is regarded as an important dimension of self regulation (Luria, 1961). An individual with greater awareness of emotions is able to access and utilise emotion information more effectively than an individual with less emotional awareness. To the extent that emotion information is beneficial, higher levels of emotional awareness are generally associated with more adaptive outcomes. As discussed earlier in this chapter, optimal emotional awareness is context dependent and in some circumstances, avoidance or denial of emotion information may be more adaptive in the short term. However, if this strategy becomes fixed and inflexible, deficits in emotional awareness functioning may result (Lane & Schwartz, 1992).

Research examining emotional awareness among adults is of particular relevance to the present study. Evidence suggests that individual differences in the perception and experience of emotions can be identified (Barrett, Lane, Sechrest, & Schwartz, 2000; Lane, Quinlan, Schwartz, & Walker, 1990; Lane & Schwartz, 1987; Lane & Pollermann, 2002). According to the Levels of Emotional Awareness (LEA) model proposed by Lane, individual differences in emotional awareness arise from the complexity and differentiation of people's representations of emotions. These in turn, are based on an individual's past experience with the language of emotion. Five levels of awareness are proposed in the model, ranging from very low levels of emotional awareness involving unconscious or somatic emotion experiences through to highly complex and differentiated emotional experiences. Low emotion awareness is regarded as distinct from the defensive mechanisms of denial or repression, in that the

latter are thought to involve well differentiated emotion experiences, kept from consciousness (Lane et al., 1996). According to the LEA model, an individual's organisation of emotion representations determines how future emotion information is processed and experienced. The ways in which emotion information is processed also has significant implications for how psychopathology is expressed and how psychopathology is most effectively addressed and remediated (Lane & Schwartz, 1992).

Studies' focusing on self-reports of distress (e.g., loneliness and depression) among rejected subgroups indicate that the aggressive-rejected group report little distress compared to the withdrawn-rejected and comorbid-rejected groups (e.g., Hecht et al., 1998; Verschueren & Marcoen, 2002). This response pattern has been explained by some researchers in terms of coping style (e.g., Zakriski et al., 1997). However, very little is known about the emotional competency of aggressive-rejected children. The possibility that poor emotional awareness may contribute to these self-report patterns is tested in the present study. Specifically the study explores whether the low levels of distress reported by aggressive-rejected children are indicative of an overall deficit in the ability to identify and express emotions.

(13) It is expected that the aggressive-rejected group will report lower emotional awareness scores compared to the average group while the emotional awareness scores of the withdrawn-rejected and aggressive-withdrawn-rejected groups will be similar to the average group.

Exploration of levels of emotional awareness among children has not been undertaken previously, in part because a suitable measure to assess emotional awareness has not been available. The first study in the present research involves the development of a measure to assess the structure of emotional awareness in children.

SUMMARY

The present focus on emotion style has arisen because there has been little research in the area of emotional functioning among rejected groups, and because this area of inquiry appears to have some important implications for understanding the unusual self-report profile of the aggressive-rejected subgroup. Emotion experiences and emotion processes are explored in the present study. The previous chapter discussed the emotion experiences of depression and anxiety, anger expression and a range of other positive and negative emotions. This chapter expanded on the four emotion processes of repression and denial, rejection sensitivity and emotional awareness. The next chapter presents the research hypotheses and provides an overview of the studies conducted.

Chapter Five

THE PRESENT STUDY

RECAPITULATION

The present study focuses on the aggressive-rejected subgroup and explores whether this group self-report a different emotion style when compared to other groups. Consistent with many sociometric studies the emotion style of four rejected subgroups and the neglected group will be contrasted to the emotion style reported by the normative average status group. However, interest will be centred on the differences in emotion style reported by the aggressive-rejected and withdrawn-rejected subgroups. There are several reasons for this. Both subgroups are known to experience a similarly aversive social environment and could therefore be expected to report an emotion style which reflected these adverse conditions and differed from that reported by average children. Yet prior findings suggest that the aggressive-rejected subgroup will report in a manner different to the withdrawn-rejected subgroup. It is expected that the emotion experiences of the withdrawn-rejected subgroup will reflect higher levels of distress consistent with their social rejection. While the aggressive-rejected subgroup also experience rejection, the emotion experiences reported by this group are expected to be similar to those reported by the average group. The emotion processes reported by these two rejected subgroups are expected to vary as a reflection of the differences in self-reported emotion experiences.

Two broad areas of emotion style will be examined in the present study. The first of these relates to self-reports of emotion experience and includes assessments of

depression and anxiety, range of positive and negative emotions and anger expression style. Consistent with the approach taken in recent studies exploring depression among rejected subgroups (e.g., Hecht et al., 1998) attention will be given to global scores and subscale scores indicative of specific affective symptoms. The second emotion style area focuses on process-related variables and includes assessments of defensive coping – denial, repression and rejection sensitivity, as well as an assessment of emotional awareness.

The present research involved three studies. The first aimed to develop a measure to assess emotional awareness in children – the Levels of Emotional Awareness Scale for Children (LEAS-C). The aim of the second study was to explore emotion styles among rejected subgroups, the neglected and average groups. This study used active consent procedures and failed to attract sufficient numbers of rejected children to be able to identify rejected subgroups. Thus the focus of Study Two turned to methodological issues associated with sociometric studies and how this related to the specific problems encountered. The third study was a replication of the second study using passive consent procedures. A significantly greater number of subjects were recruited for this study which meant there were sufficient numbers for peer-rejected subgroups to be identified.

AIMS AND HYPOTHESES

Emotion Experiences

The aim is to determine the extent to which the emotion experiences reported by the aggressive-rejected subgroup differ from those reported by the normative group and

other sociometric groups, in particular the withdrawn-rejected subgroup. Several specific hypotheses related to emotion experiences have been proposed:

Depression

Evidence of significant between-group differences in total depression scores is equivocal. However, between-group differences at the subscale level are expected. It is hypothesized that:

(1) The aggressive-rejected subgroup will report higher levels of interpersonal problems compared to the average group.

(2) The withdrawn-rejected subgroup will report higher negative self-esteem compared to the average group. There will be no significant differences in self-esteem between the aggressive-rejected subgroup and the average group.

Anxiety

There has been little research in the area of anxiety among rejected subgroups. However, consistent with general findings regarding differences between the aggressive-rejected and withdrawn-rejected subgroups, it is hypothesized that

(3) The withdrawn-rejected subgroup will report higher levels of worry / oversensitivity and physiological symptoms compared to the average group. There will be no significant difference in worry and physiological symptoms between the aggressive-rejected subgroup and the average group.

(4) The withdrawn-rejected subgroup will report higher levels of social concern compared to the average group. There will be no significant differences in social concern between the aggressive-rejected subgroup and the average group.

Range of emotions: Positive

(5) The withdrawn-rejected and aggressive-withdrawn rejected subgroups will report lower levels of positive emotions compared to the average group. The aggressive-rejected subgroup will report levels of positive emotions similar to those reported by the average group.

Range of emotions: Negative

(6) The withdrawn-rejected and aggressive-withdrawn-rejected subgroup will report higher sadness levels compared to the average group. The aggressive-rejected subgroup will report levels of sadness similar to those reported by the average group.

(7) The aggressive-rejected and aggressive-withdrawn-rejected subgroups will report higher levels of anger compared to the average group. The withdrawn-rejected subgroup will report levels of anger similar to the average group.

Anger expression

(8) The aggressive-rejected and aggressive-withdrawn rejected subgroups will report higher levels of anger-out compared to the average group.

Emotion processes

The aim is to explore the emotion processes reported by the aggressive-rejected subgroup compared to the average group and other sociometric groups, in particular the withdrawn-rejected subgroup. Several hypotheses are proposed with regard to emotion processes:

Denial

(9) The aggressive-rejected subgroup will report higher levels of denial compared to the average group. The withdrawn-rejected subgroup will report levels of denial similar to the average group.

Repression

(10) There will be a significant difference between the groups in terms of repressor status and the aggressive-rejected subgroup will have a higher proportion of repressors than any of the other groups.

Rejection Sensitivity

(11) The aggressive-rejected subgroup will report levels of angry rejection sensitivity similar to the average group. The aggressive-withdrawn-rejected subgroup will report higher levels of angry rejection sensitivity than the average group.

(12) The withdrawn-rejected and aggressive-withdrawn-rejected subgroups will report higher levels of anxious rejection sensitivity when compared to the average group.

Emotional awareness

(13) The aggressive-rejected subgroup will report lower levels of emotional awareness compared to the average group. The withdrawn-rejected subgroup will report similar levels of emotional awareness to the average group.

Chapter Six

STUDY ONE: THE DEVELOPMENT OF THE LEAS-C

One aspect of the present study focuses on the possible explanations for why the aggressive-rejected group report relatively low levels of distress. One potential reason is that aggressive-rejected children have difficulty identifying the emotions they, and possibly others, feel. Until now a measure to assess complexity of emotional awareness has not been available. The first study reports the development of a measure to assess emotional awareness in children - the Levels of Emotional Awareness Scale for Children (LEAS-C).[1]

THE LEVELS OF EMOTIONAL AWARENESS (LEA) MODEL

Emotional awareness (EA) may be the skill most fundamental to emotional intelligence (Lane, 2000). Lane & Schwartz (1987) have defined EA as the ability to identify and describe one's own emotions and those of others. The construct is derived from the developmental Levels of Emotional Awareness (LEA) model and focuses on the structure and complexity of emotion representations. That is, the capacity to differentiate emotions from one another, and the level of emotion complexity inherent in the description of emotion experiences.

EA is viewed as a cognitive skill that undergoes a developmental process similar to that described by Piaget for cognition in general (Flavell, 1963). According to the LEA model, emotional awareness is structured from cognitive schemata. The complexity of the schemata (the degree of integration and differentiation) differs between individuals and reflects an individual's past experience with the language of emotion. The function of the schemata is to filter and process external and internal emotional information. An individual's conscious awareness or experience of emotions is founded on this structural organization. Five levels of experience are

[1] The material presented below is taken from the article *Development of the Levels of Emotional Awareness Scale for Children (LEAS-C)* (Appendix A-2)

described in the model: bodily sensations, action tendencies, single emotions, blends of emotion and combination of blends (Lane & Schwartz, 1987).

The Levels of Emotional Awareness Scale (LEAS) was developed to measure individual differences in the complexity of emotional awareness among adults (Lane et al., 1990). Systematic differences in the emotional awareness of adults have been identified (for normative data see Lane et al., 1996). For example, consistent gender differences have emerged with females reporting higher levels of EA than males (Barrett et al., 2000). Support for the claim that the LEAS taps the structure of emotion – as opposed to emotional content - has also been found in several studies. For example, EA does not correlate significantly with the tendency to experience emotions intensely, nor with measures of negative affect (e.g., Taylor Manifest Anxiety Scale or the Beck Depression Inventory) (Lane, 2000; Lane et al., 1990; Lane et al., 1996). Greater details on the research evidence supporting the LEAS can be found in Bajgar, Ciarrochi, Lane, and Deane (2005) (Appendix A-2).

To facilitate placing the emotional awareness construct in a developmental context, an overview of the emotional competence field and the research domains within this broad area follows.

A DEVELOPMENTAL PERSPECTIVE OF EMOTIONAL COMPETENCE

The development of children's emotional competence is an extensive and complex research area. A diversity of terms dominate the field, each of which emphasise specific yet frequently overlapping domains of emotional competence. These include children's conceptualization of emotion (Harris & Olthof, 1982), their explanations

for emotional states (Carroll & Steward, 1984; De Rosnay & Harris, 2002), and understanding of the influence of emotion (Bennett & Galpert, 1992), their understanding of emotion expressions (e.g., their ability to encode and decode facial expressions) (Custrini & Feldman, 1989; De Sonneville et al., 2002) and their understanding of, and ability to control, emotion expression (Garber, Braafladt, & Weiss, 1995; Kopp, 1989; Saarni, 1984; Saarni & von Salisch, 1993; Underwood, Coie, & Herbsman, 1992). The influence of broader factors on children's emotional development, such as parental socialization (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997) and family expressiveness (Bowling, 1993; Denham & Grout, 1992; Halberstadt, 1986) have also gained increasing attention. Explaining age-related and gender-related patterns in emotion development has been the focus of many of these studies.

Age-related and gender-related findings in emotion knowledge

Evidence of age-related development in emotion understanding is ubiquitous. Older children are more accurate at recognizing and labeling emotions in self and others and viewing their emotions from the perspective of others (Carroll & Steward, 1984). Older children can provide more complex explanations for their emotions (Casey, 1993). They demonstrate greater insight into the impact of emotion on other areas of functioning, such as motivation and performance (Bennett & Galpert, 1992). Older children are more accurate in their understanding of emotion dimensions such as intensity, multiplicity, valence and ambivalence (Donaldson & Westerman, 1986; Harter & Buddin, 1987; Wintre & Vallance, 1994). They show greater understanding of emotion complexity (Rotenberg & Eisenberg, 1997; Terwogt, Koops, Oosterhoff, & Olthof, 1986) and are more skilled at emotional dissemblance (i.e., when feelings

are shown indirectly or deceptively) (Denham et al., 1997; Rotenberg & Eisenberg, 1997). Age-related trends such as these have also been confirmed in cross-cultural research (Koike, 1997; Markham & Wang, 1996; Smith & Walden, 1998; Tsukamoto, 1997).

Gender differences in children's emotion development have been somewhat difficult to establish and are likely to involve a complex interplay of biological, interpersonal and sociocultural factors (Brody, 1985). Differences in behavioural enactment and expression of emotions have found strongest research support (Saarni, 1999). Evidence suggests that females are more emotionally expressive and more accurate in reporting initial facial expressions, compared to males (Casey, 1993). They appear more skilled at encoding and decoding facial expression (Hall, 1984). Females also appear more adept at emotional dissemblance, substituting a full positive expression to mask disappointment, compared to the neutral expression more often taken by males (Cole, 1986). Gender differences in other domains have also been reported, including communication of emotion (Zeman & Shipman, 1996) and expression of emotions such as anger and sadness (Clay, Hagglund, Kashani, & Frank, 1996b). For instance, Hubbard (2001) found that boys expressed more facial, verbal and nonverbal anger compared to girls.

Evidence of gender effects in children's emotion understanding has been more equivocal. Past research has suggested there is little relationship between these variables (Terwogt & Olthof, 1989; Thompson, 1989). However some contrary findings have emerged in recent studies; for example, gender effects in children's understanding of multiple or contradictory emotions (Wintre & Vallance, 1994) and

affective labeling and affective perspective taking abilities (Brown & Dunn, 1996). Gender differences in emotion understanding also appear related to broader relational factors. Custrini and Feldman (1989) found females high in social competence were more skilled at encoding and decoding facial expressions whereas emotion skill did not relate to social competence for males. Brown and Dunn (1996) found relations between understanding of emotions and quality of sibling relationships was stronger for females than for males. Evidence that females develop verbal language, including emotion vocabulary, earlier than boys (Brody, 1993) is consistent with these findings. It also highlights the need to assess verbal skills when examining gender effects in emotion skills. This is particularly the case when assessment tasks are reliant on vocabulary, as with the LEAS-C. Support for the validity of a measure of EA would be provided if differences between males and females in EA remain when verbal abilities are controlled.

Developmental progressions in children's cognitive and emotion domains appear closely intertwined (Banerjee, 1997; Brenner & Salovey, 1997; Saarni, 1999). Models of emotion understanding, such as Donaldson and Westerman's (1986) four -stage developmental sequence in children's understanding of ambivalence and Harter and Buddin's (1987) developmental model of children's understanding of the simultaneity of two emotions, emphasize stage-like progressions in competence and comprehension as found in Piaget's theory of cognitive development (Flavell, 1963). On the basis of models such as these, and including the LEA model, it was expected that development in complexity of emotion understanding would increase with increasing cognitive development (age). For instance, evidence suggests that children's understanding of the simultaneity of two or more emotions, particularly

when of differing valence, occurs in mid to late childhood, around 10 years of age (Harter, 1980). Further, older children demonstrate a greater understanding of more differentiated emotion terms compared to younger children (Harter & Buddin, 1987). These findings are consistent with expectations arising from the LEA model. Specifically, it would be expected that the emotion descriptions of older children would involve more complex experience, for example, a greater range of emotion responses and / or degrees of ambivalence. It would also be expected that the emotion descriptions of younger children reflect less emotion range and less complex experience, for example, somatic and action tendencies or unidimensional emotions.

EXISTING ASSESSMENTS OF EMOTION KNOWLEDGE

One of the primary approaches to the assessment of emotional competence, particularly in relation to children's knowledge or understanding of emotion, requires children to identify discrete emotions (e.g., express a named emotion, name an expressed emotion and receptively demonstrate a particular emotion e.g., *Show me the face when John feels happy*) or to generate emotion responses appropriate to a given context or situation. Examples of such assessments include Denham's (1986) affective labeling and affective perspective-taking tasks (Brown & Dunn, 1996; Dunn, Cutting, & Demetriou, 2000; Hughes & Dunn, 1998; McElwain & Volling, 2002). Cassidy, Parke, Butkovsky, and Braungart's (1992) assessment of the causes of emotions in self and others (Dunn et al., 2000; Hughes & Dunn, 1998) and Gordis, Rosen, and Grand's (1989) storytelling interview (Brown & Dunn, 1996) are further examples. In assessments such as these, level of emotion understanding is reflected in the percentage of correct responses provided.

The LEAS-C also probes an individual's understanding of emotions in one's self and in others. However, in contrast to the above assessments, the LEAS-C is a performance based measure and rather than focusing on the correctness of responses, this measure aims to provide information about how an individual experiences emotions. For example, does this individual primarily experience emotions as somatic responses or is this individual able to identify discrete emotions in themselves and / or others. The LEAS-C differs from assessments of emotion experience [e.g., Children's Depression Inventory, (Kovacs, 1985) and Revised Child Manifest Anxiety Scale (Reynolds, 1985)] because it requires children to generate a descriptive response, providing information on their ability to identify and distinguish between potential emotion states as well as the structural complexity of that awareness.

The Kusche Affective Interview – Revised (KAS-R; Kusche, Beilke, & Greenberg, 1988) is perhaps closest to the LEAS-C in that it distinguishes between the emotions of self and other and acknowledges differences in the complexity of emotions. However, the KAI-R conceptualizes emotion complexity on only two levels, simple and complex (e.g., angry versus jealous) whereas the LEAS-C conceptualizes emotion complexity on five levels. From lowest to highest complexity these levels are somatic response, action response, discrete emotion, blended emotions and discrimination between blended emotions. The latter two levels, level 4 and level 5 responses, reflect the degree to which the blended emotions identified in the responses differ for self and for other. Similar to the abovementioned assessments, KAI-R scoring is also based on correct responses to predetermined prompts.

The present study involved two stages. Firstly, a pilot study was conducted to develop, trial and select scenes suitable for the LEAS-C. In the second stage the preliminary psychometrics and validity of the LEAS-C were examined. Gender effects for all dependent variables and age affects in EA were also explored.

THE VALIDITY MEASURES

When examining the validity of the LEAS-C, measures that were the same, or similar to those used in Lane et al's (1990) validation study with adults were used. Construct validity was examined using a cognitive developmental measure, the Parental Descriptions Scale (PDS; Blatt, 1974) and two conventional measures of emotion knowledge: Emotion Expressions (Izard, 1971) and Emotion Comprehension (Cermele, Ackerman, & Izard, 1995).

The PDS examines the cognitive complexity of children's representations, based on written open-ended descriptions of their mother and father. The inclusion of this measure made it possible to assess the developmental basis of the LEAS-C. The Emotion Expressions task assesses emotion decoding skill and requires children to recognize and label the emotion expression posed by adults. The Emotion Comprehension task examines children's perspective-taking abilities. This latter task also shares some similarity to the LEAS-C. In both tasks children are presented with a series of scenarios and are required to indicate how the main character might feel in the given situation. That is, both tasks tap some dimension of emotion understanding. However, the measures differ in two key aspects. Firstly, the LEAS-C focuses on two perspectives (self, other) whereas the Emotion Comprehension task examines one perspective (other). More importantly, the LEAS-C requires subjects to generate

responses to each scenario while the Emotion Comprehension task requires subjects to select a suitable response from a given array. Furthermore, LEAS-C responses are scored on the basis of the structural complexity in emotion responses, not on the appropriateness of the response. Scoring of Emotion Comprehension is based on correct responses. The inclusion of the Emotion Expressions and Emotion Comprehension tasks allowed a test of the premise that the LEAS-C also taps a dimension of emotion knowledge / intelligence.

Two verbal measures were also included in the battery; Vocabulary (WISC-III: vocabulary subscale) and Verbal Productivity (VP, the total number of words used in constructing LEAS-C responses). Prior research suggests children's verbal skills are strongly related to their emotion abilities (Cutting & Dunn, 1999; De Rosnay & Harris, 2002). The inclusion of these variables allowed control of factors such as verbosity and vocabulary skills to LEAS-C performance.

STUDY ONE HYPOTHESES

A significant positive correlation was expected between the LEAS-C with the PDS and the emotion knowledge tasks. Given that the Emotion Expression task is more closely oriented to emotion recognition skill, and the LEAS-C and the Emotion Comprehension task to emotion understanding, the relationship between the latter two measures was expected to be strongest.

Gender effects on the dependent variables were also examined. Of primary interest were gender differences in LEAS-C performance. On the basis of adult LEAS findings and evidence of gender effects in many domains of children's emotion skills

(e.g., Casey, 1993; Wintre & Vallance, 1994; Zeman & Shipman, 1996) it was predicted that females would report higher levels of emotional awareness than males. It was expected that gender effects in LEAS-C performance would remain when the influence of verbal skill was controlled. It was also predicted females would score higher than males on the emotion knowledge and verbal tasks. Past research would suggest that females outperform males in emotion expression tasks, including emotion decoding tasks (Hall, 1984). While gender effects in children's emotion understanding are far less clear, evidence that females perform better than males in perspective-taking tasks has been found (Brown & Dunn, 1996). Given prior findings (e.g., (Brody, 1993), it was also expected that females would report higher verbal scores than males. Gender effects in the PDS were not expected.

The limited age range in this study restricted the potential for examining age effects within-sample. However, given the developmental basis to the LEA model, it would be expected that adults report higher levels of EA than children. While the EA scores obtained in this child study could be compared to Lane et al's (1996) normative adult data, a direct comparison such as this comes with notable limitations. The instruments used to assess EA in adults and in children are not identical. While over 80% of LEAS-C scenarios are derived from the LEAS, slight modifications were made to all shared scenarios. In addition, the LEAS-C contains two new scenarios. The LEAS is comprised of 20 scenarios, while the LEAS-C has 12. However, the scenarios serve the general function of eliciting emotion descriptions and the scoring system for both adult and child version is identical. This means that in theory, scores utilise the same metric although derived from slightly different prompts. With these caveats in mind, EA scores were compared between adult and child data. It was predicted that adults

would report higher EA scores than children. Given prior evidence of significant gender differences in EA, the extent to which age effects varied on the basis of gender was also explored.

In summary, the reports of two studies follow. The first of these was a pilot study that involved the development and selection of LEAS-C items. The second examined the preliminary psychometric characteristics of the LEAS-C. Gender and age were also examined in relation to the LEAS-C.

PILOT STUDY

Item development

Initial steps involved the generation of a pool of potential LEAS-C scenarios. Where possible, items from the adult-based LEAS were used. Thirteen of these were selected. Slight modifications – vocabulary, grammatical or contextual – were necessary with all thirteen, reflecting the adaptation of an adult instrument to a measure appropriate for use with children. Some vocabulary modifications reflected cultural differences (e.g. "fire engines" replaced "fire trucks" (scenario #2). LEAS scenarios not selected for the pilot study were excluded on the basis of content or theme inappropriateness (e.g., loyalty to one's country, suicide) or because they were generally not amenable to minor modification. To extend the selection pool further, an additional nine scenarios were developed to reflect school or peer themes (e.g., teacher handing out test results, an accident in the playground, sharing food, getting picked for a team). Consistent with the organising theme used in the generation of LEAS scenarios, these items were developed to pull for one of four emotions: anger,

fear, happiness or sadness. This process resulted in a pool of 22 potential LEAS-C scenarios; 60% of these were modified LEAS scenarios.

The study

The pilot study was conducted with a small group of six children (three males, age range 10-11 years, M_{age} = 10.3; three females, age range 9 –12 years, M_{age} = 10.0). These children were known to the first author and did not have any social / academic delay or disability. Four of the six children completed the 22 scenarios in a 1:1 test situation with the first author. Two children completed the measure at home in their own time. The average time to complete the 22 scenarios was one hour. Children were encouraged to ask questions as they arose. A brief discussion followed completion of the LEAS-C, where children's responses to, and perceptions of the task were probed (e.g., level of interest, clarity and ease of response).

Item selection

On the basis of children's written and verbal responses, items that appeared ambiguous or redundant were discarded. Other factors including children's interest and the desire to maintain thematic balance (school versus home contexts; types of targeted emotions) were also considered. The decision to retain only twelve of the twenty-two scenarios was guided by the desire to preserve the maximum number of scenarios with least risk of task demands negatively impacting on children's performance (e.g. a 1-hour written task negatively impacting on motivation). On the basis of pilot study time trials, we anticipated 12 scenarios could be completed in approximately 20 minutes. This was judged a reasonable task requirement. The fact that a 10-item version of the LEAS had been used successfully in adult research

(Barrett et al., 2000) also suggested that a 12-item measure was feasible. Of the final 12 scenarios, 10 were modified LEAS items. Two scenarios were new and reflected school / peer issues.

THE PSYCHOMETRIC STUDY

In this study we examined the psychometric properties of the 12- item LEAS-C among a larger group of school children.

METHOD

Participants

Fifty-one children between the ages of 10 and 11 participated in the project. There were 25 females (10 years, n = 18; 11 years n = 7; M_{age} = 10.3, SD = .46) and 26 males (10 years, n = 17; 11 years, n = 9; M_{age} = 10.3, SD = .49). Participants were recruited from two private schools in a regional city of 180,000. The city has a mix of heavy industrial and university based employment. All children were of middle class background and identified as competent English speakers.

Procedure

An information sheet describing the general background and aims of the study was provided for all students in grades five and six (see Appendix B-1). Student consent forms were attached to this sheet (see Appendix B-2). A separate information sheet was provided for the parents with the parental consent form attached (see Appendix B-3 and B-4). Teachers were also given an information sheet about the study (see Appendix B-5). Consent to participate was obtained for 49% of the overall targeted group. Two children who had returned consent forms were unable to participate on

the day of data collection and the data for two children who fell outside of the sampled age range were not included (one aged 9 and another aged 12 years).

Data collection instructions and administration were identical for the two schools (Appendix B-6). The measures were group administered in one of the school classrooms. All instructions and items were read aloud to the students. The measures were presented to students in the following sequence: LEAS-C, PDS, Emotion Expression, Vocabulary subtest - WISC-III, and Emotion Situations. Students participated anonymously. Data collection was completed in approximately 90 minutes with a short break of approximately 10 minutes mid-way.

Measures

Emotional awareness

The LEAS-C comprises 12 evocative interpersonal scenarios [see Appendix B-7(i)]. Each scenario is described in 2 to 4 sentences, and involves two people. Subjects are asked to describe the feelings of self and of the other person for each scenario. Two scenarios are presented per page, each scenario followed by two questions: "How would your feel?" and "How would the other person feel?"

The scoring procedure for the LEAS-C is identical to that followed by the LEAS (Lane, 1991). Scoring is aimed at determining the degree of differentiation or specificity in the emotions described and the range of emotions reported. Each scenario is designed to elicit one of four types of emotion (happiness, anger, sadness or fear; 3 samples each). In departure from other emotion knowledge assessments [e.g., Denham's (1986) affective labelling and affective perspective-taking tasks], this

format serves an organisational purpose only and the particular emotions targeted in the scenarios are not relevant to the scoring of the LEAS-C. The primary purpose of the LEAS-C is to examine the emotion complexity inherent in the responses children generate to each of the scenarios, therefore the "correctness" of their response is not relevant to the scoring.

Complexity of emotional awareness is assessed on five levels. A low awareness level 1 response may stress somatic features, e.g., "I would feel sick", or may directly state a lack of emotional response, e.g., "I would feel nothing". A level 2 response reflects action e.g., "I would feel like smashing the wall" or a more global and generalised state not indicative of a specific emotion e.g. "I would feel good". Level 3 responses reflect specific unidimensional emotions e.g., "I would feel happy". Level 4 and 5 responses show greater complexity in awareness with emotion blends evident e.g., "I would feel angry but maybe a little bit sad as well". Where there is no response or the response reflects a cognition e.g. "I would feel like she did it deliberately", a score of 0 is given.

For each scenario three scores are allocated: a score for self-awareness, other - awareness, and for total-awareness. The total-awareness score is taken as the higher of the self- and other-awareness scores.[2] Self- and other-awareness scores range from 0 to 4. Where both self- and other-awareness are scored 4, and there is differentiation between the emotion terms used for self and other, a level 5 score is allocated [see Appendix B-7 (i) (a)]. Total self-scores and total other-scores range from 0 to 48 (e.g.

[2] While there were some indications that children's self-EA was higher than other-EA, the difference between self- and other-awareness scores was *ns,* especially when gender is considered separately (gender combined: $t(50) = 1.54$, $p = .06$; males: $t(25) = 1.40$, $p = .09$, females: $t(24) = .81$, $p = .21$, 1-tailed). In addition, we sought to maintain the scoring procedures used with the LEAS to facilitate comparisons between adult and child emotional awareness research.

for each scenario a range from 0 – 4). However, the maximum possible Total awareness score is 60 (e.g., a Total awareness score for one scenario can be scored 5). The glossary of emotion words used for scoring the LEAS was also used to guide the scoring of the LEAS-C (Lane, 1991).

Parental Descriptions Scale

Investigation of children's cognitive developmental level was provided by the Parental Descriptions Scale (PDS; Blatt, 1974) [see Appendix B-7(ii)]. The PDS is one component of the larger Assessment of Qualitative and Structural Dimensions of Object Representation Scales (Blatt, Chevron, Quinlan, Schaffer, & Wein, 1992). The PDS focuses on children's open-ended descriptions of their parents. Several assessment components are involved in the PDS including qualitative characteristics evident in descriptions, verbal fluency, degree of ambivalence and conceptual level. The conceptual dimension only was assessed here as our interest lay in examining the developmental relationship between the PDS and LEAS-C.

Subjects were asked to "*Describe your mother*" and halfway down the page "*Describe your father*". At the request of the University Human Ethics Committee, these instructions were modified with the inclusion that another significant adult in the child's life could be described (e.g., grandmother) if describing one's mother or father was not appropriate to the child's home situation. Students were asked to indicate whom they were describing. A 9-point scale is used to guide scoring, ranging from a level 1 response - a concrete description lacking self-other differentiation, to a level 9 response where complex and differentiated psychological characteristics are used to convey the uniqueness of the individual. A narrower range of PDS scores was

expected in children's responses, compared to that found in adult studies (Priel, Myodovnik, & Rivlin-Beniaminy, 1995). In adult studies, interrater reliability for the PDS has been reported between .83 and .88 (Blatt, Wein, Chevron, & Quinlan, 1979; Blatt, Wiseman, Prince-Gibson, & Gatt, 1991; Bornstein, Galley, & Leone, 1986). In Priel et al's (1995) child study, interrater reliability for the PDS ranged from .76 to .89. For the conceptual component alone, interrater reliability was r = .89. Data for interrater reliability was not available in the present study. Mother and father scores were significantly correlated, $r = .94$, $p < .001$, providing some support for the internal consistency of the PDS.

Verbal skills

(i) Vocabulary

The vocabulary subtest of the Wechsler Intelligence Scale for Children (WISC-III) was used to provide an index of verbal intelligence (Barrett et al., 2000) [see Appendix B-7(iii)]. For the purposes of this study, the measure was group administered (Barrett et al., 2000; Subic-Wrana, Thomas, Huber, & Koehle, 2001). Fifteen words were read aloud to the students. The starting point for the word list was taken using the lowest age of the participating students as a guide (Sattler, 1992). Students were directed to write the meaning of each word. Total vocabulary scores ranged from 0 to a maximum possible of 30. In the present study the internal consistency of the vocabulary subtest using Cronbach's alpha was .71.

(ii) Verbal Productivity

Replicating Lane et al's (1990) validation study of the LEAS, the total number of words used to respond to all LEAS-C scenarios were summed to provide a VP score for each subject.

Emotion knowledge

The Emotion Expressions and Emotion Comprehension tasks have been used in prior research as conventional measures of emotion knowledge (Garner, Jones, & Miner, 1994; Ribordy, Camras, Stefani, & Spaccarelli, 1988). They assess recognition of emotion cues in faces and situations respectively. In the present study, the Emotion Expression measure (Izard, 1971) was presented as a production task, requiring children to recognise emotion cues in faces and to generate their own responses [see Appendix B-7(iv)]. Internal consistency of the Emotion Expressions task has been reported at $\alpha = .52$ (Schultz & Izard, 1998) and in combination with the Emotion Comprehension task, $\alpha = .65$ (Schultz, Izard, Ackerman, & Youngstrom, 2001; Schultz, 2001). In this study the internal consistency of the Emotion Expression task was $\alpha = .52$ and in combination with the Emotion Comprehension task, $\alpha = .54$. The Emotion Comprehension task required students to recognise emotion cues in different situations and following certain behaviours, and to select a suitable response from a given array (Cermele et al., 1995) [see Appendix B-7(v)]. Internal consistency of the Emotion Comprehension task has been reported at $\alpha = .58$ (Schultz & Izard, 1998b) with a similar result in the present study, $\alpha = .59$.

(i) Emotion expressions

Students were presented with photos of the faces of adults posing one of six emotions (anger, surprise, sadness, disgust, joy or fear) (Glenn, 1974). These photos were presented to the group in sequence. Following each photo presentation, students were asked to generate a response to the question: "How is this person feeling?" Responses were scored according to the following format: score 2 = correct answer or synonym,

score 1 = incorrect answer but correct valence (e.g., negative or positive emotion) and score 0 = incorrect answer and incorrect valence.

(ii) Emotion comprehension

This task was divided into two parts. Part I comprised 18 scenarios and students were asked to identify how the protagonist felt in each situation (happy, sad, mad, scared, interested or ashamed). For example, "*Matt was playing on the footpath all by himself. All of a sudden, a big strange dog came running over, barking loud and showing all of his teeth. Does Matt feel: happy, sad, mad, scared, interested, ashamed*." Part II comprised 9 scenes and students were asked to identify how the protagonist felt after behaving in a particular manner (happy, mad, proud, guilty, ashamed or looking down on someone). For example "*Lisa worked hard on her painting in art class. When she got home, her mother hung it in the lounge room. Does Lisa feel: happy, mad, proud, guilty, ashamed, looking down on someone*." Responses were scored using the same procedure as that for the emotion expression task.

RESULTS

Consistent with adult-based LEAS research, EA results are reported in terms of total-LEAS-C scores (see Method for scoring details). However, in departure from convention, we also reported self- and other- LEAS-C scores. This decision was guided by developmental research suggesting that differences in self- and other-emotional awareness may themselves, be informative (Carlo, Knight, Eisenberg, & Rotenberg, 1991; Carroll & Steward, 1984; Denham, 1986). Comments in relation to

overall emotional awareness or LEAS-C scores will refer to total- LEAS-C scores, unless specific reference to LEAS-C subscales is made.

The results are reported in four sections. The reliability analysis for the LEAS-C is presented first. To examine the validity of the LEAS-C, Pearson correlations are reported between the LEAS-C, the emotion knowledge tasks, the verbal tasks and the PDS. Gender differences in the LEAS-C, the emotion knowledge tasks, the verbal tasks and the PDS are then examined with a one-way ANOVA. A one-way ANCOVA explores gender effects on LEAS-C scores controlling for verbal skill. Age effects in EA, comparing the child data obtained in this study to Lane et al's (1996) adult normative data are then presented. An alpha level of .05 and directional testing was used throughout.

Reliability

Each LEAS-C scenario was coded and scored independently of the remaining scenarios. Twenty-two of the protocols were scored by two raters. Interrater reliability using Pearson's correlation was, for self-LEAS-C scores, $r = .93$, for other-LEAS-C scores, $r = .86$ and for total-LEAS-C scores, $r = .89$. Internal consistency using Cronbach's alpha was $\alpha = .71$ for self scores, $\alpha = .64$ for other-scores and $\alpha = .66$ for total scores ($n = 51$). Given that the LEAS-C is comprised of 12 items, a slight attenuation of reliability was expected when compared to the 20-item version for adults (Lane et al., 1990; Lane et al., 1996).

Correlations with the LEAS-C

Relations between the LEAS-C (self-, other-, and total-scores) and the emotion knowledge tasks, the verbal tasks, and the PDS were then examined (see Table 6.1). Pearson's product-moment correlation was used. Total-LEAS-C scores were significantly correlated with Emotion Comprehension and Vocabulary and VP. Other-LEAS-C scores were significantly related with Emotion Expression and Emotion Comprehension. Self- LEAS-C scores were not significantly related to any of the variables ($p > .1$).

Table 6.1

Correlations between the LEAS-C, Emotion Knowledge tasks, Verbal skills and the PDS

	LEAS-C							PDS[e]	
	Self	Other	Total	Express [a]	Compreh.[b]	Vocab.[c]	VP[d]	Mother	Father
LEAS-C: Self	-								
Other	.55**	-							
Total	.76**	.79**	-						
Expression	-.03	.30*	.15	-					
Compreh.	.17	.25*	.28*	.01	-				
Vocab.	.17	.19	.31*	.22	.41**	-			
VP	.13	.05	.30*	.23	.34**	.32*	-		
PDS: Mother	-.10	-.04	.02	-.05	-.08	.18	-.06	-	
Father	-.07	.04	.04	-.01	-.11	.08	-.08	.94**	-

[a] Emotion Expressions; [b] Emotion Comprehension; [c] Verbal subtest, WISC-III; [d] Verbal Productivity; [e] Parental Descriptions Scale.
*$p < .05$; **$p < .01$

Gender effects

A one-way analysis of variance (ANOVA) was conducted to examine gender effects for the 3 emotion tasks, the 2 verbal tasks and the cognitive developmental task (see Table 6.2). Females reported significantly higher scores for the LEAS-C: self-, other-, and total-scores, the Emotion Comprehension task, Vocabulary and VP. Gender effects on the Emotion Expression task were weaker and were *ns* ($p = .06$). Gender differences for the PDS were also *ns*. A one-way analysis of covariance (ANCOVA) examined whether the gender effects on LEAS-C performance were maintained with the contributions of Vocabulary and VP removed. The relationship between both covariates and the LEAS-C were *ns* ($p > .05$). The main effect of gender was significant for total LEAS-C scores, F (1, 47) = 8.44, $p = .01$ and for other-LEAS-C scores, F (1, 47) = 5.12, $p = .03$. Gender effects on self-LEAS-C scores were *ns*, F (1, 47) = 3.10, $p = .09$.

Table 6.2

Gender differences in emotion skills, verbal skills and cognitive development

	Males		Females		
Measures	Mean	SD	Mean	SD	F
LEAS-C self	30.65	6.20	33.88	4.53	4.48*
other	29.31	6.10	32.96	4.00	6.35**
total	34.15	4.32	38.20	3.60	13.15**
Emotion Expressions	24.92	4.24	26.68	3.48	2.60
Emotion Comprehension	43.38	3.56	45.16	3.02	3.68*
Vocabulary	16.46	4.84	19.08	5.10	3.54*
Verbal Productivity	207.54	63.83	240.96	72.60	3.06*
PDS - mother	3.60	1.58	3.92	1.29	.62
- father	3.64	1.78	3.88	1.24	.31

*$p < .05$; **$p < .001$

Age effects

As noted earlier, the restricted age range available in this study meant it was not possible to examine age effects within sample. However, preliminary steps were taken in this direction by examining the EA scores from this child sample, and EA scores from Lane et al's (1996) normative adult data. LEAS-C scores were prorated to facilitate comparisons. The descriptives for child and adult EA data are presented in Table 6.3. Contrast analysis using Welch's procedure (Welch, 1947) was used, which provides reasonable protection

against Type I error when variances are heterogeneous and sample sizes are unequal (Kirk, 1982). Both Age and the interaction of Age and Gender were *ns* ($p > .1$).

Table 6.3

Within gender comparisons of child and adult EA data: Means and Standard Deviations

	Males				Females			
	Boys (n = 26)		Men (n = 190)		Girls (n = 25)		Women (n = 197)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
EA[a]	56.9	4.3	58.5	11.0	63.7	4.4	64.3	10.2

[a] Total LEAS-C scores for child data (mean scores prorated); Total LEAS scores for adult data.

DISCUSSION

This study reports the development, and preliminary psychometric and validity testing of the LEAS-C. Results suggest that reliability of the LEAS-C is acceptable. Interrater reliability was high, while preliminary evidence for internal consistency of the LEAS-C was fair in view of the small sample size and the fact only 12 items comprise the LEAS-C. Validity testing results were promising and gender effects were generally supported.

It was predicted that the LEAS-C would be related to the emotion knowledge tasks and specifically, that the LEAS-C would be more strongly related to Emotion Comprehension than to Emotion Expression. This was expected because the presentation formats of both the Emotion Comprehension task and the LEAS-C were similar and both measures

assessed perspective-taking ability. In contrast to this, the Emotion Expression task assessed the ability to decode, recognise and label emotions from visual cues. The relationship between the LEAS-C and Emotion Comprehension was found to be stronger, the latter measure being significantly correlated to both other- and total-LEAS-C scores. The predicted relationship between the LEAS-C and Emotion Expressions was only partially supported. The relationship between Emotion Expressions and total-LEAS-C scores was not significant; however Emotion Expressions was significantly related to other-LEAS-C scores. This relationship makes sense even though presentation formats between the two tasks differ, in that children are required to identify the emotions felt by others with both measures. They are also required to generate their responses in both tasks.

Prior research suggests children's verbal abilities relate strongly to their emotion skills (Cutting & Dunn, 1999; De Rosnay & Harris, 2002). The findings from this study were consistent with these expectations. Both Vocabulary and VP were significantly related to the LEAS-C. The strength of the relationship between each verbal skill and the LEAS-C were comparable, suggesting both volume and specificity of words contribute to LEAS-C performance.

Contrary to expectations, there was no relationship between the LEAS-C and the PDS. Given that the two measures are based on cognitive models which emphasise developmental stage progressions, the relationship between the two measures may be better demonstrated with a greater age range and larger sample size. However these

results do raise the question of the development time course of object representation and emotional awareness. Perhaps by adulthood these domains are more stably related while in childhood, in this age group, there may be significant time lags in the development of these domains that is not yet well understood. These results do appear to suggest that these different domains develop at different rates in different children (horizontal decalage).

Consistent with adult findings, strong gender differences in EA using the LEAS-C were found. Females outperformed males on self-, other-, and total-LEAS-C scores. Most importantly, with the contribution of vocabulary and VP removed, gender effects in EA remained. These results provide support for the claim that the LEAS-C taps the structure and complexity of emotions, independent of language. As predicted, females outperformed males on the Emotion Comprehension task, Vocabulary and VP. While evidence of gender differences in children's emotion understanding has been equivocal, these results support previous findings of gender effects in children's perspective-taking ability (Brown & Dunn, 1996). From a broader perspective, these results also support gender differences in some dimension of children's emotion understanding. On the basis of previous results (e.g., Casey & Schlosser, 1994; Hall, 1984) it was predicted that females would achieve significantly higher emotion decoding scores compared to males. The results found in this study were weaker than predicted with gender effects not reaching significance (p = .06). Consistent with expectations, gender effects in cognitive development were not evident.

Preliminary steps to examine age effects were also taken. Within-gender means were in the expected direction, with both boys and girls reporting lower EA scores compared to adult males and females. Contrary to expectations, age effects were *ns*. Methodological limitations in the comparison between child and adult EA data were noted earlier, and may have had some bearing on these results. Developmental progressions in EA may be more clearly demonstrated with the involvement of younger age groups. Evidence suggests children as young as 3 years of age understand the terms sad, mad, happy and scared and can relate events and experiences that may evoke such emotions (Harter, 1982). Future research involving age groups such as 3-5 years and 6-8 years will be necessary to thoroughly investigate developmental progressions in EA. While the discrepancy between child – adult scores was greater for males than for females, the Age × Gender interaction was also *ns*. The child data was based on a relatively small sample size, especially when considered within gender. Further research using larger samples may more adequately test the extent to which rates of developmental progression in EA differ between males and females.

In conclusion, the findings of the present study are encouraging and suggest that individual differences in complexity of emotional awareness may be meaningfully measured in children. Importantly, the results suggest that the sex differences that have been observed in EA among adults also emerge in children as young as ten years old. In addition to the above, several directions for future research are recommended. A larger sample size would increase the stability of many of the coefficients (e.g., internal consistency). Test – retesting and / or the inclusion of self-reports of emotion experiences

measures would provide opportunities to test whether the LEAS-C taps the structure, not experience, of emotion. Evidence of gender differences in relations between emotion and social variables (e.g. Brown & Dunn, 1996; Custrini & Feldman, 1989) may be further explored with the LEAS-C. For example, it would be of value to examine with larger samples if the LEAS-C relates to other indices of children's social / emotional functioning such as social competence and social behaviour. Future research exploring the predictive validity of the LEAS-C and how this compares to the predictive capacity of "accuracy' based assessments of emotion knowledge is also recommended.

These issues are not central to the present focus on between-group differences in emotion style and will be addressed in future research. However there is sufficient reliability and validity data to justify the use of the LEAS-C in exploring the role of emotional awareness amongst rejected groups of children. The following chapter describes the second study in this research which was a sociometric study conducted using active consent procedure.

Chapter Seven

STUDY TWO: METHODOLOGICAL DIFFICULTIES IN A SOCIOMETRIC STUDY

Study Two was originally designed to explore the emotion style of the aggressive-rejected subgroup and how this compares to other groups. However methodological difficulties were encountered in this study in relation to the use of sociometric methods. Thus the focus here is twofold: firstly, to consider the methodological issues associated with sociometric studies of this kind and secondly, to explore the specific difficulties encountered in Study Two. The nature of these difficulties, why they arose and how they can be addressed are then discussed. Study Three integrates these recommendations and is presented in Chapter Eight.

Rejected children are identified by a sociometric method which has been used extensively for many decades. This methodology provides robust information about dimensions of social competence which cannot be obtained from other sources [e.g. self report or reports from adults (teachers, parents) (Hymel, Vaillancourt, McDougall, & Renshaw, 2002; Merrill, 2003)]. Not surprisingly, researchers interested in social relationships among children frequently use these methods. For those unacquainted with the sociometric field, it is important to note that there is considerable diversity in sociometric method. There are also potential pitfalls associated with this method which are seldom articulated in research studies. For a comprehensive review of methodological issues in sociometric research, the reader is referred to Foster, Bell-Dolan, and Berler (1986). To begin familiarizing the reader with this area, an introduction to sociometry and sociometric methodology follows.

WHAT IS SOCIOMETRY?

Sociometry is an assessment method which provides information about group perceptions towards individual group members. Sociometry is most commonly used to clarify the social standing (group acceptance) and social behaviour of group

members. Peer perceptions of other domains such as athleticism, physical attractiveness, leadership and academic capability have also been assessed (e.g., Hymel et al., 1993). Data gathered in this way is useful because it conveys important information about social competence and psychological risk from multiple sources (Kupersmidt, Coie, & Dodge, 1990; Parker & Asher, 1987).

Sociometric assessment provides information about all group members. The information regarding each individual group member is collective. It represents the sum of responses from multiple sources and is relative to the other group members. Information about a particular individual is gained indirectly through feedback from the other group members. As a result, information about an individual can be collated even if that individual does not participate in the assessment procedure.

METHODOLOGICAL ISSUES IN SOCIOMETRIC RESEARCH

Sociometric measures are frequently used in classroom-based research and yet the methods used to elicit sociometric information vary considerably (Berler, Allen, & Burge, 1985). For a comparison of sociometric approaches taken in contemporary studies the reader is referred to Appendix C-1. Two main areas of diversity are the types of sociometric measure (i.e., how are the sociometric nominations elicited?) and sociometric method (i.e., how is the sociometric information gathered?).

Terry (2000) identified four broad types of sociometric measure: (a) Friendship questions (*who are your best friends?*), (b) direct preference questions (*name the children you like the most*), (c) acquaintance questions (*name all the kids you hang around with*) and (d) indirect preference / task-specific choice (*who would you like to*

sit next to?). Nominations for each of these measures may be limited (e.g., k = 3) or unlimited.

Terry (2000) also identified four primary sociometric methods: (a) a peer nomination task which asks participants to nominate others according to a specific criterion, (b) a rank order task which requires participants to rank all individuals preferentially according to particular criteria, (c) a peer rating scale where participants rate on a Likert-type scale the extent to which all individuals meet a particular criteria and (d) a paired comparison task requiring participants to make preference choices based on the presentation of all possible dyadic choices.

Other sources of sociometric variability include how the reference group is defined. For instance, the reference group may involve the whole class or the whole grade and it may be across-gender or within-gender. Group definition is influenced by factors such as participant age. For instance, the social perceptions of younger children are generally held to be more stable when restricted to peers from their own class (e.g., those to whom the child is most frequently socially exposed) (Zakriski & Coie, 1996). Whilst the sociometric pool is generally restricted to within-class for younger children, some researchers also advocate these nominating pools should also be within-gender (e.g., Hayden-Thomson, Rubin, & Hymel, 1987). The social sphere of the adolescent subject is likely to include students from different classes and of both genders. Reflecting this, the nominating pool is usually across the grade and gender. Comparisons between various methodologies have been explored by several authors (e.g., Cillessen & Bukowski, 2000; Newcomb & Bukowski, 1983; Terry & Coie, 1991). Strengths and weaknesses have been associated with each of these approaches.

It has also become clear that there is little overlap between various approaches. The implication of this is that studies using different sociometric methods will have results that may be difficult to compare.

POTENTIAL PITFALLS IN SOCIOMETRIC RESEARCH

Participation rates

The sociometric method provides information about individual group members via other members of the group. The robustness of the information received about each individual group member is dependent upon the number of group participants from whom information is gathered. In other words, the reliability of sociometric information depends on the within-group participation rate. A review of published sociometric studies cites participation rates of between 50% and 75% and has suggested that participation rates as low as 25% may provide sociometric feedback approximate to that which would be received from more substantially represented samples (Foster et al., 1986; Terry, Coie, Lochman, & Cillessen, 1998). However a within-group participation rate of around 70% is generally recommended in sociometric research (Crick & Ladd, 1989).

Participation recruitment

Eliciting sufficient participation rates can present considerable difficulties for the researcher (Zakriski et al., 1999). Establishing an environment conducive to ongoing and reliable sociometric research is viewed by many researchers as a longer term goal. Such environments are reliant on fostering open and trusting working relationships between school systems and research bodies and these may take some years to establish (Zakriski et al., 1999). When such a relationship has been established, a

number of approaches can be taken to enhance participation rates. These include repeated visits to the classroom to elicit participation, incentives such as gift certificates offered in the form of a lottery for all children who return consent forms, letters sent to the child's home with the consent form and stamped return envelope enclosed, and phone calls to the child's parents to seek permission to participate (Noll, Zeller, Vannatta, Bukowski, & Davies, 1997).

In the absence of such conditions, some researchers have taken more radical steps. A survey of the recruitment practices adopted by leading researchers in the sociometric field included conducting research with all children without consent, obtaining passive consent, or obtaining active consent but restricting the sociometric pool to the names of participating children only (Noll et al., 1997). Regrettably, the issue of recruitment difficulties and how these are overcome are not always acknowledged in studies (see Appendix C-2). This problem is not confined to sociometric studies alone (Betan, Roberts, & McCluskey-Fawcett, 1995). The extent to which these differing practices impact on the comparability of samples is far from clear.

THE SOCIOMETRIC APPROACH TAKEN IN STUDY TWO

In the present research, limited nomination of three peers, direct preference questions were used in a peer nomination approach. Reference samples were within-class and within-gender. This approach has been used extensively in sociometric research although not always within-gender (e.g., French & Waas, 1985; Parkhurst & Asher, 1992; Patterson et al., 1990; Rabiner & Gordon, 1992). Decisions in relation to methodological choice were guided by general and specific considerations. One of the primary advantages of the peer nomination procedure, particularly with limited choice

nominations, is simplified data collection. Given time constraints and the volume of additional self-report measures to be completed by students in this project, this factor was influential. For example, it would have been excessively time consuming to have subjects complete ratings on all of their peers. In addition, this research sought to replicate and extend the findings of other researchers; in particular Boivin et al., (1994) and Hecht et al., (1998). Thus, the methodology used in this research shares similar features with these studies to increase comparability.

What follows is an elaboration of one sociometric approach that is commonly used to identify sociometric groups and subgroups. This same approach was used in both Study Two and Study Three.

Social standing: Identifying sociometric groups

With a direct preference approach, social standing is based on two orthogonal dimensions: the extent to which a child is liked by their peers and the extent to which they are disliked by their peers. Nominations of like and dislike are used to identify distinct social dimensions within the group, using a procedure outlined by Coie, Dodge, and Coppotelli, (1982). The like-most and like-least nominations received by each individual are summed and standardized within the reference sample.[1] These standardized scores are then used to generate two group constructs, social preference (SP) and social impact (SI). SP provides an index of group likeability towards the child and is calculated by subtracting like-least from like-most nominations (Z_{LM} - Z_{LL}). SI provides an index of the child's impact on their peer group, calculated by

[1] The standardization process involved two steps: (1) Each observation is subtracted from the mean to give a deviation score and (2) The deviation score is divided by the standard deviation to give the standard score. This transformed score is measured in standard deviation units e.g., a z score of 0.75 is a score which is .75 above the mean. The process of transformation within reference samples makes it possible to compare scores across samples as corrections for between-sample differences in the voting pool size and the sample list size have been made.

summing like-most and like-least nominations ($Z_{LM} + Z_{LL}$). SP and SI scores are then standardized within the reference sample. SP and SI dimensions, in conjunction with like and dislike nominations, are used to classify children into social status groups. The sociometric groups most commonly identified are Popular, Controversial, Average, Neglected and Rejected.

A cut-off figure is used to delineate social status groups. The value of this cut-off figure is relatively arbitrary. Traditionally a value of one standard deviation has been used (Coie et al., 1982). Using this value as an example, social status groups are formed in the following way: Popular status: (SP) > 1.0, LM > 0, LL < 0; Rejected status (SP) < -1.0, LM < 0, LL > 0; Neglected status (SI) < -1.0, LM < 0, LL < 0; Controversial status (SI) > 1.0, LM > 0, LL > 0 and Average status 1.0 > (SP) > -1.0, 1.0 > (SI) > -1.0.

Recent evidence suggests greater leniency in cut-off figures may more accurately identify children at greater long-term risk (Terry & Coie, 1991). Less stringent cut-off values have also been necessary in many studies which have focused on rejected subgroups. That is, the use of more lenient cut-offs maximizes the pool of rejected children and has made it possible to identify subgroups of rejected children. Cut-off values in studies focusing on rejected subgroups have varied; [e.g., .8, (Zakriski & Coie, 1996); .75, (Boivin et al., 1994), and .5 and -.5, (Hymel et al., 1993)]. Other studies have used more stringent cut-off values for the classification of the Average status group (e.g., .5), thereby reducing the heterogeneity of the average group (e.g., Parkhurst & Asher, 1992). This process results in a small sample of sociometrically unclassifiable subjects.

In the present study the Average, Neglected and Rejected sociometric groups were identified using a cut-off figure of .75. This figure was chosen to maximize the sample numbers in the rejected sociometric group, thereby retaining sufficient numbers for the identification of rejected subgroups. This cut-off figure was also used by researchers undertaking similar studies to the present research (e.g., Boivin et.al., 1994); thus adoption of the same cut-off values strengthened the comparability between studies.

Social behaviour: Identifying rejected subgroups

Subgroups of rejected children are identified on the basis of peer nominations of social behaviour. Nominations may be limited or unlimited. Nominations are frequently based on behavioural descriptors, which are nonstandardised descriptions of particular social behaviours. Aggression and withdrawal are the most frequently targeted negative behaviours. Behavioural descriptors differ widely as do the number of descriptors employed to identify behaviour (e.g., aggressive descriptors include *gets into lots of fights*, *loses temper easily*, *too bossy*, *or picks on other kids* and withdrawal descriptors include *easiest to push around*, *very shy* and *rather play alone that with others)*. The pool of behavioural descriptors used to identify aggression is sociometric research is generally smaller than the pool of descriptors used to identify withdrawal. This may well reflect the fact that aggression is viewed as a more unitary construct than withdrawal (Harrist, Zaia, Bates, Dodge, & Pettit, 1997).Where several descriptors are used for a given behaviour, nominations for each descriptor are summed to form a total score (e.g., a total aggression or total withdrawal score). Nominations scores are then standardardised within reference samples and these standardized scores are used to classify rejected children into subgroups.

In the present research two behavioural descriptors for aggression and four behavioural descriptors for withdrawal were used to identify subgroups. The aggression descriptors were *starts fights and arguments* and *picks on others and teases others too much.* The descriptors for withdrawal were *is very shy*; *is afraid of new things or new situations, would rather play alone that with others* and *gets really worried about lots of things*. A greater number of withdrawal descriptors were used to here to encompass the broader range of descriptors used in sociometric research. All descriptors have been used elsewhere to identify rejected subgroups (e.g., Boivin et al., 1994; Hymel et al., 1993, Zakriski & Coie, 1996).

As with sociometric nominations, the traditional one standard deviation cut-off value may be replaced by a more lenient figure e.g., .75, (Boivin et al., 1994) and -.5 to .5, (Hymel et al., 1993), with values reflecting the purpose of subgroup selection and available sample numbers. However irrespective of the cut-off value used, the following pattern is generally observed: the aggressive-rejected group has high aggression scores and medium to low withdrawal scores; the withdrawn-rejected group has high withdrawal scores and medium to low aggression scores. Some researchers identify a comorbid behavioural group of aggressive-withdrawn-rejected. This group scores high on both aggression and withdrawal. The nonaggressive-nonwithdrawn-rejected group has low to medium aggression and withdrawal scores. In the present study a cut-off value of .75 was used to identify four rejected subgroups: aggressive-rejected, withdrawn-rejected, comorbid-rejected and nonaggressive-nonwithdrawn-rejected.

Details of the method followed in Study Two, with particular emphasis on participation recruitment and participation rates now follows.

METHODOLOGICAL PROBLEMS ENCOUNTERED IN STUDY TWO

Data for the present research was initially gathered from five private elementary schools. Three of these were drawn from an area comprised of heavy industrial and university based employment and two schools were in rural regions. Data collection involved the sociometric assessment outlined above which permitted the identification of groups. The method used in this study was identical to that used in Study 3 and is detailed in the method section of the following chapter. A number of additional self-report measures were also administered and these are detailed also in the method section of the following chapter. The data was collated following active consent guidelines. Despite best efforts in the recruitment phase of data collection, difficulties in participation rates were encountered across the five schools.

Recruitment phase of data collection

The initial recruitment of schools for research participation was conducted by telephone. These schools had not been approached previously by the researcher. Thus, relations between the researcher and the relevant school bodies in the recruitment phase were new. Eleven schools were approached for participation; six schools declined involvement and five schools agreed to participate. The reasons for non-involvement of schools included commitment to other research projects, insufficient time and administrative obstacles (e.g., temporary principal placement). Two schools failed to return calls following initial enquiries.

Comprehensive information concerning the research background, goals and research protocols were sent through the mail to the five schools that had indicated preliminary support. A follow-up contact time to finalise the school's commitment to the project was organised at this time. This was arranged as telephone contact, between 1-2 weeks following the posting of the research material. All five schools agreed to participate in the project. Contrary to the experiences of other researchers (e.g., Zakriski et al., 1999), concerns regarding the negative impact of sociometric assessment were not raised in any of the schools.

Prior to data collection, visits were made to each of the schools to present the research background and goals to students and their teachers. The research was presented as a study about "how children think and feel" (see Appendix C-3). Questions were encouraged throughout the information session. During this visit information and consent forms were distributed to all students. This included information and consent forms for the students (see Appendix C-4 and C-5) and information and consent forms for their parents (see Appendix C-6 and C-7). Information sheets were also provided for classroom teachers (see Appendix C-8). Maximum participation was encouraged during the information session.

Students were instructed to take the information and consent forms home to their parents and discuss their involvement in the project with their parents. It was clearly indicated to students that participation in the research project required active consent from both parents and the student themselves. Approximately 1-2 weeks elapsed between handing out of consent forms and data collection. Students were encouraged

to return both consent forms within 3-5 school days. Whilst the return time was considered brief, this was the period recommended by several schools.

Method

Measures

Given the focus of discussion for Study 2 is on participation rates associated with the sociometric method rather than the specifics of method content, full descriptions of the measures are located in the method section of Study 3 in the following chapter.

Data collection phase

The study was conducted in the middle of the academic year. Students were well acquainted with one another and the majority had schooled together for several years. All measures were group administered in one session during regular class time. For some schools this meant several classes were accommodated together in the school hall. In other schools, testing sessions were conducted class by class. All participating students had returned parental and student consent forms. Students who had not returned consent forms were not present in the group setting. To protect the anonymity of participating students, protocols were coded. Data from the five schools was collected within a 6-week period. Students needed to complete at least 85% of the survey to be included. Two subjects were removed from the data set for incomplete responses.

Five hundred and fifty one students from 10 fifth-grade and 10 sixth-grade classrooms in five schools were approached for participation. A total of 181 fifth- and sixth-grade students (74 males, 107 females, M_{age} = 10.8 years) participated in the sociometric

study. Of these, 42% were fifth-grade students (n = 76; 31 males, 45 females) and 58% were sixth-grade students (n = 105; 43 males, 62 females). The average within-gender classroom participation rate was 33.3% (*range* 0 - 70%), a figure well below the 70% recommended for sociometric research (Crick & Ladd, 1989). A breakdown of within-class within-gender participation rates in each of the 5 schools is presented in Table 4. Average within-gender class size was 15 students (*range* 9 - 19). The average school participation rate was 34% (*range* 21 – 43%).

Table 7.1

Participation rates (%) for within-class, within-gender samples

School	Gender	Grade 5			Grade 6			Total Gender Participation	Total Sample Participation
		Class A	Class B	Class C	Class D	Class E	Class F		
1	M	0	0	_	15	8	_	5	
	F	25	21	_	50	41	_	35	21
2	M	1	67	_	21	31	_	31	
	F	6	12	_	47	42	_	28	29
3	M	25	40	_	27	13	_	16	
	F	64	50	_	18	18	_	40	36
4	M	17	39	18	47	33	60	35	
	F	70	33	56	43	43	62	51	43
5	M	38	_	_	62	_	_	54	
	F	27	_	_	40	_	_	33	43

A total of 372 fifth- and sixth-grade students (193 males, 179 females) did not consent to participation. Grade representation among non-participants was similar: 51% of non-participants were fifth-grade students (98 males, 92 females) and 49% were sixth-grade students (95 males, 87 females). The evidence suggested that the lack of consent mainly resulted from parents not completing the consent forms.

The implications of a low participation rate

The implications of this low participation rate were twofold. As explained earlier in this chapter, the lower the within-reference group participation rate, the more incomplete and unreliable the sociometric information becomes. Participation rates were highly variable in this data collection, with a within-reference group participation range of 5 – 54%. The maximum participation rate was still well below the 70% rate recommended by (Crick & Ladd, 1989). As a result of the low participation rates, the overall sociometric feedback was insufficient to reliably classify participants into sociometric groups. In addition, what sociometric information was available suggested that rejected children were under-represented in the participant sample. That is, rejected children appeared to be highly represented among non-consenting groups. This issue of a potential participation bias is addressed in greater detail elsewhere (see Appendix A-9).

Conclusions and alterations to research protocol

Successful data collection was reliant on two factors in this research: relatively high participation rates and the participation of children who were unpopular with their peers. Data was collected using active consent guidelines when a working relationship between the researcher and school bodies had not been previously established. These

circumstances did not appear conducive to meeting the data collection requirements, despite the fact the school principals were supportive of the research. Given a longer working relationship with the school bodies a number of other avenues to enhance research participation may have been available. This could potentially include direct telephone contact with parents and the use of incentives (e.g., lottery prizes, small gifts). It may also have been possible to distribute multiple rounds of permission letters to classrooms over an extended period of time (e.g., one month), rather than the single distribution approach adopted in the present study. This could involve several weekly classroom visits to collect permission notes and redistribute permission letters to those children who have not returned forms.

One approach that is frequently adopted by researchers to elicit high participation rates is to conduct the sociometric research using passive consent protocols. This approach presented distinct advantages in the present research situation where established relations between research bodies and school personnel had not been established. The arguments put forward by Bishop and Inderbitzen (1995) for this approach are particularly relevant to this study. Namely, that active-consent procedure frequently results in a consent return rate of less than half and that such low participation rates are likely to negatively impact on the reliability of sociometric classifications. Also consistent with the inferred and anecdotal feedback from the present study, Bishop and Inderbitzen (1995) found that low consent return rates were more frequently reflective of parental inertia or disinterest rather than active non-consent to research participation. Nevertheless, passive consent procedures give rise to a number of ethical concerns and considerations, some of which are explored below.

Ethical considerations with passive consent procedures

Passive consent projects are not uncommon in school settings and are generally associated with significantly higher response rates when compared to active consent projects (Range, Embry & MacLeod, 2001). However, the nature of the research project involved has much to do with the level of ethical concern raised by passive consent. The issue of passive consent, particularly in the context of sociometric research, raises a number of ethical concerns. These are directly related to the concept of informed consent.

Active consent procedures require parents to endorse participation. Detailed information about the research accompanies the consent form and signed consent is generally assumed to reflect the parent's informed choice. There is no guarantee of an informed preference with passive consent. Passive consent requires parents to sign and return a form if they refuse their child's participation in research. Under such conditions it is difficult to clarify whether a non-response from parents reflects ignorance of the research project or an informed choice.

In the present research, students were required to evaluate their peers in terms of liking, disliking and social behaviour. They were also required to provide detailed information about their emotional functioning and this information was identifiable. Specific ethical concerns included whether or not student names were included on class lists irrespective of consent. In the present research the decision was made to include all within-gender class names on sociometric lists. The arguments for this included the fact that reducing the nominating pool to consenting students only may have resulted in an unrealistic portrayal of group dynamics. That is, students may

have made selections that they would not otherwise have made had the full list of peers been available. In addition to this, whilst nonconsenting students were included on class lists in the sociometric assessment and therefore, information about these students was collected indirectly via nominations from participating peers, this data was not collated or entered for subsequent analyses at any stage. Data was collated from and about participating students only.

The interpretation given to the low participation rates that resulted under the active consent conditions is a central issue here. Enquiries were undertaken with all participating schools to clarify why the response rates had been so low. The general feedback from principals and teachers reflected issues around parental inertia. There was no indication from any school that parents actively did not want their children to participate in the project. This suggested that active consent procedures would have sufficed had greater involvement in participation recruitment been possible.

To increase overall participation and to elicit the involvement of the targeted rejected sociometric group, an application for passive consent procedures was submitted to the university ethics committee and was subsequently approved. Data was collected from an additional six primary schools using passive consent protocols. This data collection resulted in a significantly higher participation rate and is reported as Study 3 in the following chapter.

Chapter Eight

STUDY THREE: THE SOCIOMETRIC STUDY

The previous chapter explored the methodological problems that arose in the second study in relation to sociometric groups, and in particular, rejected subgroups. Seeking to improve participation rates, an application for passive consent was submitted to the University Ethics Committee and subsequently approved. The following study, Study Three is a replication of the second study, using passive consent protocols. It is the main study of the present research.

INTRODUCTION

This study focuses on the self-reported dimensions of emotion style reported by several different groups. These self-reports will be contrasted to one another and focus on six sociometric groups: the aggressive-rejected, withdrawn-rejected, aggressive-withdrawn-rejected, nonaggressive-withdrawn-rejected, neglected and average groups. Interest centres on the aggressive-rejected group and whether the self-report profile of this group differs from that reported by other groups, in particular, the average group and the withdrawn-rejected subgroup.

The dimensions of emotion style explored in the present study are also organized into two areas: (1) emotion experiences and (2) emotion processes. Emotion experiences include assessments of depression, anxiety, range of positive and negative emotions and anger expression style. Emotion processes include awareness of emotions, repression of emotions and denial. The presence of an emotion processing style known as Rejection Sensitivity is also explored.

METHOD

Participants

Five hundred and eighty one students from 11 fifth-grade and 9 sixth-grade classrooms in six private elementary schools were approached for participation. All schools belonged to the one Catholic Education Diocese; four of the schools were located in middle to large city areas while two schools were located in rural districts. Students were predominantly Caucasian (across the six schools the percentage of children with English as a second language ranged from 0 – 30%), although a greater mix of ethnic backgrounds was evident in schools situated in or close to city areas. A variety of socioeconomic classes were represented across the schools and the majority of parents were identified as in either semi-professional or trade occupations.

The difficulties encountered in maximizing student participation, particularly in sociometric research, have been acknowledged in the previous chapter and elsewhere (Beck, Collins, Overholser, & Terry, 1984; Frame & Strauss, 1987; Iverson, Barton, & Iverson, 1997; Noll et al., 1997; Zakriski et al., 1999). In an attempt to encourage the highest possible participation rate in this sociometric study, passive consent procedures were used. This meant that all parents had the opportunity to refuse permission for their children to participate in the study. However, they were informed that if they did not reply to the study information sheet, it would be assumed that they were consenting for their child to participate in the study (see Appendix D-1). This procedure was reviewed and approved by the university ethics committee and school principals.

An information sheet about the study was sent home to parents via their child. Whilst it was not possible to guarantee that parents received the information sheet, efforts were made to encourage schools to heighten parental awareness about this study. For instance, some schools agreed to place a notice in their school newsletter. Teachers were encouraged to regularly remind students to speak to their parents about the study. Teachers were also encouraged to speak directly parents about the project where possible.

A total of 475 fifth- and sixth-grade students (227 females, 248 males, M_{age} = 11 years) participated in Study Three. Of these, 54% were fifth-grade students (n = 256; 134 males, 122 females) and 46% were sixth-grade students (n = 215; 111 males, 104 females). For this study the participation rate was 82%, a figure well above the minimum rate of 70% suggested by Crick & Ladd (1989). Within-gender reference samples were used in the standardization process of sociometric and behavioural data (Asher et al., 1984; Oden & Asher, 1977). The average within-gender class size was 15 students (*range* 9 - 20). The average within-gender classroom participation rate was 84% (*range* 53 - 100%). Four parents declined participation. Nonparticipation was otherwise accounted for by absence from school on the day of data collection.

Measures [1]

Emotional Awareness

The Levels of Emotional Awareness Scale for Children (LEAS-C; Bajgar, Ciarocchi, Lane, & Deane, 2005) (Appendix A-2) is a 12-item measure assessing the structure and complexity of emotional awareness in children (see Appendix B-7(i) for the

[1] The measures that are detailed below are identical to those implemented in Study Two.

measure). The LEAS-C can be administered on an individual or group basis. Items are presented as brief scenarios, each involving two people; Self and Other. Following each scenario two questions are posed: "How would you feel?" "How would the other person feel?" Respondents are required to generate their answer, using the words "I would feel ….." and "He would feel ….." in their response. The LEAS-C is comprised of three scales: (a) Self awareness, which reflects awareness of one's own possible emotions in each of the 12 scenarios; (b) Other awareness, which reflects awareness of the possible emotions of others in each scenario and (c) Total awareness which is taken as the higher of the Self or Other scores for each item. Scoring is aimed at determining the degree of differentiation in emotion words used and the range of emotions described. For each item 3 scores are given: Self, Other and Total. Item scores can range from 0 – 5. Total scores for each item are summed to give an overall LEAS-C total score. Total scores on the LEAS-C can range from 0 to 60, with higher scores reflecting greater complexity in emotional awareness.

Development and preliminary investigation of the psychometric properties of the LEAS-C was reported in Bajgar et al., (2005; Appendix A-2). Inter-rater reliability for the 3 scales was found to be strong: r = .93 for Self scores, r = .86 for Other scores and r = .89 for Total scores. In the present study internal consistency using Cronbach's alpha was α = .67 for Self scores, α = .68 for Other scores and α = .72 for Total scores.

Depression

The Children's Depression Inventory (CDI; Kovacs, 1983) is a 27-item self-report measure that assesses symptoms of depression in children and adolescents [see

Appendix D-2(i)]. The CDI can be administered on an individual or group basis. Each item consists of three statements graded in symptom severity from 0 – 2 (e.g., *I am sad once in a while* = 0, *I am sad many times* = 1, *I am sad all the time* = 2). Total scores range from 0 to 52, with higher scores indicative of greater reports of depressive symptomatology. The CDI consists of 5 subscales: (a) Negative Mood, consisting of six items (e.g., "*I am sad*"); (b) Interpersonal Problems, consisting of four items (e.g., "*I like being with people*"); (c) Ineffectiveness, consisting of four items (e.g., " *I have to push myself to do schoolwork*"); (d) Anhedonia, consisting of eight items (e.g., "*I have trouble sleeping*") and (e) Negative Self-Esteem, consisting of five items (e.g., "*I do not like myself*"). The CDI total score and all five subscale scores were used in this research. In this study, the suicidal ideation item from the Negative Self-Esteem subscale was removed. This decision was prompted by ethical concerns in view of the passive consent procedures used in this study.

The CDI has been used widely in applied and research settings (Kazdin, 1981). The psychometric qualities of this scale are well documented. Acceptable internal consistency (Cronbach's α =.71 - .89) and test-retest correlations (r = .38 - .87) have been reported (Carey, Gresham, Ruggiero, Faulstich, & Enyart, 1987; Kovacs, 1985; Saylor, Finch, Furey, Baskin, & Kelly, 1984). The CDI has also demonstrated good discriminant validity when distinguishing between children with no significant psychopathology and depressed children (Kovacs, 1992). In Study 3, the internal consistency using Cronbach's was alpha α = .91 for the CDI Total scores and for the subscales; α =.72 for Negative Mood, α = .63 for Interpersonal Problems, α = .67 for Ineffectiveness, α = .67 for Anhedonia and α = .63 for Negative Self-Esteem.

Anxiety

The Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1985) is a 37-item self-report measure, which assesses the level and nature of anxiety in children and adolescents [see Appendix D-2(ii)]. The instrument can be administered on an individual or group basis. Items are presented in a yes / no format. Total anxiety scores range from 0 – 28 with higher scores indicative of greater levels of anxious symptomatology. The RCMAS consists of four subscales: (a) Physiological Anxiety, consisting of 10 items (e.g., "*Often I feel sick in my stomach*"); (b) Worry / Oversensitivity, consisting of 11 items (e.g., "*I worry about what other people think about me*"); (c) Social Concerns / Concentration, consisting of 7 items (e.g., "*A lot of people are against me*"). The fourth subscale, the Lie scale is reported below as a separate assessment of denial. The RCMAS total score and four subscale scores were used in this study.

The psychometric properties of the RCMAS have been found to be satisfactory across a number of studies. Alpha coefficient estimates of internal consistency for the RCMAS range from .42 to .87 (Reynolds & Richmond, 1985). Test-retest reliabilities have been found at .98 over a 3-week interval (Pela & Reynolds, 1982). In Study 3 the internal consistency using Cronbach's alpha was $\alpha = .81$ for RCMAS Total scores and for the subscales; $\alpha = .65$ for Physiological Anxiety, $\alpha = .79$ for Worry / Oversensitivity and $\alpha = .64$ for Social Concerns / Concentration.

Anger expression

The Pediatric Anger Expression Scale (PAES-III; Jacobs et al., 1989) is a 15-item self-report measure that assesses anger expression styles in children [see Appendix D-

2(iii)]. Participants rate on a 3-point scale (*hardly ever* = 1, *sometimes* = 2, o*ften* = 3) the frequency with which he or she engages in the described behaviour. The PAES is composed of 3 scales each consisting of 5 items: (a) Anger-Out, which assesses the tendency of open, potentially aggressive expressions of anger (e.g., "*I do things like slam doors*"); (b) Anger – Suppression, which measures the tendency to suppress or deny anger (e.g., "*I get mad inside but I don't show it*") and (c) Anger Control, which measures the tendency to control anger and initiate adaptive strategies (e.g., "*I talk to someone until I feel better*").

The PAES has been applied to clinical (e.g., Kashani, Canfield, Soltys, & Reid, 1995; Kashani, Dahlmeier, Borduin, Soltys, & Reid, 1995; Kashani, Suarez, Allan, & Reid, 1997), at-risk (e.g., Sukhodolsky, Solomon, & Perine, 2000) and normative (e.g., (Musante et al., 1999) populations. Adequate internal consistency and test-retest reliability (Jacobs et al., 1989; Musante et al., 1999) and evidence of concurrent validity (Jacobs et al., 1989) have been reported. Hagglund et al., (1994) report alpha coefficients of .71 for anger suppression, .72 for anger out and .59 for anger control. For Study 3 data the internal consistency using Cronbach's alpha was $\alpha = .72$ for the Anger-Out scale, $\alpha = .69$ for the Anger-Suppression scale and $\alpha = .66$ for the Anger-Control scale.

Repression

The Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960) is a 33-item self-report measure that is used in conjunction with RCMAS total scores to identify repressors [see Appendix D-2(iv)]. Repressors report high levels of social desirability and low levels of anxiety (Weinberger, Schwartz, & Davidson, 1979). The

MCSDS has been primarily used with adults, although more recent focus has been given to adolescents (Steiner, 1991, 1992; Williams, 1999) and children (Fritz, Spirito, & Yeung, 1994). Originally conceived as a measure of impression management, evidence now suggests the measure taps more substantive dimensions involving self-deception (Millham & Kellogg, 1980; Millimet & Cohen, 1973). A 13-item short-form of the MCSDS (Reynolds, 1982) was used in Study 2 and 3. Items are presented in a true / false format. Examples of "False" responses which reflected greater social desirability included "*I sometimes feel mad when I don't get my way*" and "*It is sometimes hard for me to go on with my work if I am not encourage*". Examples of "True" responses reflecting greater social desirability included "*I have never been annoyed when people expressed ideas very different from my own*" and "*I'm always willing to admit it when I make a mistake*". Total scores range from 0 to 13 with higher scores indicative of greater defensive responding.

Consistent with the procedure followed by Fritz et al., (1994) when administering the measure to children, complex words in the MCSDS were identified and general substitutions offered when administering the measure. In this study *resentful* was replaced by *mad*, *rebelling* was replaced by *going against*, *took advantage of* was replaced by *used*, *courteous* was replaced by *polite*, *irked* was replaced by *annoyed, like when someone gets on your nerves* and *irritated* was replaced by *annoyed*.

The MCSDS has been applied to both clinical and non-clinical populations (Evans, 1982; Strickland & Crowne, 1963). The 13-item MCSDS has been found to be psychometrically strong and comparable to the full version (Reynolds, 1982; Silverstein, 1983). While several short form versions of the MCSDS have been

developed (e.g., Reynolds, 1982; Strahan & Gerbasi, 1972), the 13-item version appears to be the most reliable (Reynolds, 1982; Silverstein, 1983; Zook & Sipps, 1985). Zook and Sipps (1985) report reliability estimates ranging from .63 - .82 with an overall coefficient of .72. For Study 3 the internal consistency using Cronbach's alpha was $\alpha = .67$.

(i) Identifying repressor and non-repressor groups

Repressors were identified using the median split on scores from the MCSDS and RCMAS profiles. This procedure is commonly used as a means of identifying repressors (e.g., Weinberger, 1990). While other studies have used more stringent scores than the median to classify repressors, it has been argued that the generalisability of findings may be compromised under these conditions (King, Taylor, Albright, & Haskell, 1990).

Following the procedure outlined by Weinberger, Schwartz and Davidson (1979), participants with above the median MCSDS scores and the median or below RCMAS scores were classified as repressors. In Study 3, independent samples t-tests revealed significant gender differences for both the RCMAS (t (469) = -3.02, $p < .01$) and the MC (t (469) = -3.49, $p < .01$). As a result, within-gender median scores were used to identify groups. An RCMAS median score of 12.03 and an MCSDS median score of 6.73 was used to classify females into repressor and non-repressor groups. An RCMAS median score of 10.44 and an MCSDS median score of 5.82 was used to classify males into repressor and non-repressor groups. Use of these cut-off figures resulted in the classification of 160 repressors (79 males, 81 females, 34% of the total sample). Within gender, 32% of males and 36% of females were repressors. The

remaining participants were classified as nonrepressors (n = 310; 165 males, 145 females, 66% of the sample).

Denial

The Lie subscale of the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978) was used to assess denial. The use of lie scales to measure denial has a long history (e.g., Castaneda, McCandless, & Palermo, 1956; Goldschmid, 1968; Hill & Sarason, 1966). Nine items comprise this subscale and high scores on the scale reflect a tendency to present oneself in a favourable light, and to deny flaws and weaknesses (e.g., "*I am always kind*", "*I like everyone I know*"). It has been reported that the RCMAS Lie subscale has the highest reliability and clearest factorial validity of the RCMAS subscales (Wilson, Chibaiwa, Majoni, & Masukume, 1990). The Lie subscale has been shown to exhibit adequate estimates of internal consistency (.77 across 11 age groups, ages 6 to 19) (Reynolds & Richmond, 1985). In the present study the internal consistency using Cronbach's alpha was $\alpha = .78$.

Rejection sensitivity

The Children's Rejection Sensitivity Questionnaire (CRSQ; Downey, Lebolt, Rincon, & Freitas, 1998) assesses children's tendency to expect, perceive and respond defensively (e.g., anxiously or angrily) in ambiguous interactions involving peers and teachers [see Appendix D-2(v)]. In the present study attention focused on children's tendency to expect and perceive rejection from others, which was assessed in the first section of the CRSQ. This section is comprised of twelve scenarios in which the possibility of rejection exists (e.g., " … *you hear some kids whispering on the stairs below you. You wonder if they are talking about you*"). The affect and thoughts of the

participant are probed, *before* any rejection has occurred. For each scenario, participants rate on a 6-point scale the extent to which they would feel anxious and angry in this context [Anchors range from *not nervous* / *not mad* (1) to *very, very nervous* / *very, very mad* (6)] and the extent to which they believe that in this situation, they will be rejected [anchors ranged from *yes* (1) to *no* (6)].

Thus, rejection sensitivity can be assessed in terms of both angry and anxious emotional responses. In previous studies Downey and colleagues have distinguished between angry and anxious expectations of rejection, although primary focus has been given to angry rejection sensitivity (e.g., Downey, Lebolt, Rincon, & Freitas, 1998). Angry rejection sensitive and anxious rejection sensitive groups have been identified using the median split on scores of angry and anxious expectations of rejection. Given the large number of groups already identified in this study, this approach was not adopted here. Rather, angry and anxious expectations of rejection sensitivity were treated as continuous variables and between-group differences in total scores of angry and anxious rejection sensitivity were explored.

The psychometric properties of the CRSQ that have been reported to include satisfactory internal consistency (α = .72 - .84) and adequate construct validity (Downey et al., 1998). In this study the internal consistency using Cronbach's alpha was α = .84 for Anxious Expectations of Rejection and α = .82 for Angry Expectations of Rejection.

Discrete emotions

The Differential Emotions Scale - IV (DES-IV; Izard, Dougherty, Blowxom, & Kotsch, 1974) is a 36-item self-report measure that assesses the frequency of 12 discrete emotions; 3 of positive valence (joy, surprise, interest) and 9 of negative valence (guilt, shy, disgust, hostility, shame, sad, contempt, fear, anger) [see Appendix D-2(vi)]. Each of the 12 emotions is assessed by three items. Participants rate on a 5-point scale (*rarely or never* = 1, *hardly ever* = 2, *sometimes* = 3, *often* = 4, *very often* = 5) how often they experienced a particular emotion in the past week.

The DES was originally developed by Izard (1971) as a self-report measure of 10 fundamental emotions. This scale was revised (DES-III: Izard, Dougherty, Blowxom, & Kotsch, 1974) and factor analysed with children as young as eight years (Kotsch, Gerbin, & Schwartz, 1982). The DES–IV approximates a fifth-grade reading level using the Flesch-Kincaid criteria (Wampler, da Silva, & Moore, 1989). The DES-IV is identical to the DES-III with the addition of two scales, Shame and self-directed Hostility. The DES in its various forms has been applied to both clinical and non-referred populations (Carey, Finch, & Carey, 1991). Good internal consistency, test-retest reliability and construct validity have been reported (Blumberg, 1998). Several studies have provided evidence for the construct validity of the DES-IV (Blumberg & Izard, 1985, 1986; Fridlund, Schwartz, & Fowler, 1984). In the present study the internal consistency using Cronbach's alpha was α = .61 for the Positive Emotions total and α = .84 for the Negative Emotions total. Internal consistency of the 13 discrete emotions ranged from weak to acceptable with α = .52 for Guilt, α =.51 for Shy, α = .69 for Joy, α = .65 for Disgust, α = .76 for Hostility, α = .60 for Shame, α =

.66 for Sad, α = .57 for Contempt, α = .45 for Interest, α = .46 for Surprise, α = .79 for Fear and α = .69 for Anger.

Procedure

The study was conducted in the last school term of the academic year. As a result, students were well acquainted with one another. All measures were group administered in one session. For some schools this meant several classes were accommodated together in the school hall. In other schools, testing sessions were conducted class by class. Students were debriefed following the completion of all assessments (see Appendix D-3). All data for this study was collected within a 4-week period.

Sociometric nominations and behavioural nominations

Within-gender class lists were presented for both sociometric and behavioural nominations (see Appendix D-4). This approach was taken to reduce the possibility of a bias in opposite-sex nominations (Hayden-Thomson et al., 1987). The class list presented to within-gender class groups was identical for both sociometric and behavioural nominations. Sociometric nominations were used to identify sociometric groups and behavioural nominations were used to identify rejected subgroups.

Sociometric nominations were limited (n = 3) and were presented on the first page. Participants were requested to circle the names of three classmates they liked the most and circle the names of three classmates they liked the least. Following the sociometric nominations, two behavioural descriptors were presented per page for the following four pages. Behavioural nominations were unlimited and participants were

requested to circle the names of any classmate that fitted each of the descriptors. For example, "Below is a list of the boys in your class. Please put a circle around the boys who are "*afraid of new things or new situations*". The eight behavioural descriptors used in this study were similar to those found in other sociometric studies (e.g., Boivin et al., 1994; Hecht et al., 1998; Hymel, Bowker, & Woody, 1993; Parkhurst & Asher, 1992; Zakriski & Coie, 1996) and were presented in the following order: *afraid*, *alone*, *humour*, *cooperative*, *fights*, *shy*, *tease* and *worry*. The two positive behavioural descriptors (*humour*, *cooperative*) were fillers only and were included in the list to counterbalance the negative behavioural descriptors. Data from the two positive descriptors was not included in further analyses.

Identifying sociometric groups

The names of all students in participating classrooms were presented in class lists, in their within-gender class pool. Any student on a class list could receive like-most (LM) and like-least (LL) nominations from their peers, irrespective of whether that student participated in the research. Data on students who did not participate in the research was omitted from further processing because these students did not complete self-report measures. This totaled less than 19% of the total potential sample. The number of nominations each student could potentially receive from peers was constrained by the within-gender within-class participating pool. To correct for differences in participating pool size, the LM and LL nominations received by each student were summed and standardized in within-gender within-class groups. These scores were used to generate social preference (Z_{LM} - Z_{LL}) and social impact (Z_{LM} + Z_{LL}) scores. Social preference (SP) and social impact (SI) scores were then re-standardised within-gender and within-class.

Sociometric groups were identified following the procedure outlined by Coie et al., 1982). Of interest to the present research were the rejected, neglected and average-status groups. Participants with a $Z_{SP} < -.75$, $Z_{LM} < 0$ and $Z_{LL} > 0$ were labeled rejected. The use of a cut-off criterion of .75 was more lenient than the traditional cut-off figure of 1 standard deviation. However the use of lower cut-off criteria maximizes the rejected pool and is a commonly encountered practice in studies seeking to identify rejected subgroups from the rejected pool (e.g., Boivin et al., 1994; Hymel et al., 1993; Zakriski & Coie, 1996). From a more general perspective, evidence also suggests that the use of more lenient rejection cut-offs may better identify rejected children at long-term risk (Terry & Coie, 1990). Participants with a $Z_{SI} < -.75$, $Z_{LM} < 0$ and $_{ZLL}<0$ were classified as neglected. Participants with average SP and SI scores ($-.75 < Z < .75$) were labeled as average. Consistent with the practice of many sociometric studies, the average-status group was conceptualized as a normative group and as such provided an important point of comparison with the other groups (Boivin et al., 1994; Hymel et al., 1993).

Of the 471 participants, 324 (69%) could be classified using the steps described. One hundred and three participants (51 males, 52 females) were classified as rejected, 91 participants (51 males, 40 females) were classified as neglected and 130 participants (63 males, 67 females) were classified as average. Thus, 22% were classified as rejected (cf. 20-23%), 19% classified as neglected (cf. 19-23%), and 28% classified as average (cf. 20-31%). These figures were comparable to those reported elsewhere (e.g., Coie & Dodge, 1983; Coie et al., 1982).

Identifying rejected subgroups

The nominations received for the behavioural descriptors were summed for each participant. An aggression score was obtained by summing the nominations for *tease* and *fight*. A withdrawal score was obtained by summing nominations for *afraid*, *alone*, *shy* and *worry*. Aggression and withdrawal scores were standardised within-class and within-gender (Coie, Lochman, Terry, & Hyman, 1992; Zakriski & Coie, 1996). In the present study, the internal consistency of aggression and withdrawal scores using Cronbach's alpha was $\alpha = .95$ for Aggression, $\alpha = .88$ for Withdrawal. Aggression and withdrawal scores were used to further classify the rejected group into four subgroups. Participants in the rejected group with a high aggression score (z >.75) and a low or normal withdrawal score (Z < .50) were classified as aggressive-rejected (n = 35; 13 males, 22 females, 34% of the rejected sample). Participants in the rejected group with a high withdrawal score (Z > .75) and a low or normal aggression score (Z < .50) were classified as withdrawn-rejected (n = 25; 19 males, 6 females, 24% of the rejected sample). Participants in the rejected group who received high scores for both aggression and withdrawal (Z > .75) were classified as aggressive-withdrawn-rejected (n = 10; 3 males, 7 females, 10% of the rejected sample). Participants in the rejected group with low or normal scores on both aggression and withdrawal (Z < .50) were classified as nonaggressive-nonwithdrawn-rejected (n = 20; 10 males, 10 females, 19% of the rejected sample). Following these procedures, 87% of rejected children were classified into rejected subgroups with a further 13% (n = 13, 6 males, 7 females) remaining unclassifiable. Data from these participants was not included in further analyses involving the rejected subgroups.

Reviewing sample sizes for rejected subgroups

The aim of this study was to explore differences in dimensions of emotion style between the aggressive-rejected group and other groups. These comparisons were to be undertaken with a series of one-way analysis of variance (ANOVA) tests. While the sample size of most groups was acceptable for this statistical procedure, the small sample size of the comorbid aggressive-withdrawn-rejected group (n = 10) was of concern. Some researchers in the field have worked with similar sized samples. For example, Boivin and colleagues (1994) explored subgroup differences in self-reports of depression and depressive symptomatology with rejected subgroup sizes of n = 13 (aggressive-rejected), n = 8 (withdrawn-rejected) and n = 6 (aggressive-withdrawn-rejected). For an overview of the sample sizes used in a selection of contemporary sociometric studies focusing on rejected subgroups, see Appendix A-1. However, specific drawbacks are associated with markedly smaller sample sizes, including a loss of power to detect group differences. Several statistical procedures are also not recommended when there are large differences in sample sizes between groups. Given these potential complications, the decision was made to err on the side of caution and to omit the comorbid aggressive-withdrawn-rejected subgroup from further analyses. Thus, the number of groups involved in sociometric comparisons was reduced from six to five and now included the aggressive-rejected, withdrawn-rejected, nonaggressive-nonwithdrawn-rejected, neglected and average group.

Data screening and missing values

Prior to data analysis, the LEAS-C, CDI, RCMAS, PAES, DES, MC and CRSQ were examined for accuracy of data input and the amount and distribution of missing data. This preliminary stage of data screening was conducted using the whole sample.

Further work examining the assumptions of univariate analysis related directly to the groups used in analysis and were therefore conducted within group.

Participants needed to complete at least 80% of all questionnaires to be retained in the data set. Three participants completed less than this amount and their data was removed. One additional participant was identified by teachers as having a significant psychological disorder. This student required one-on-one teacher assistance to complete the questionnaires. Subsequent data screening revealed the student's responses to be notably different from the overall group on the majority of the questionnaires. This suggested that the student's level of functioning was atypical of the targeted population and the student's responses were removed from the data set. In relation to each of the battery measures, all measures were attempted by all participants with the exception of the DES, CRSQ and CDI. One participant did not attempt the DES, two participants did not complete the CRSQ and five participants (< 2%) did not attempt the CDI.

For each questionnaire at least 80% of the items needed to be completed for the participant's responses to be retained in the data set. With the exception of the LEAS-C, all measures were affected by missing values. For those measures where a total score and subscale scores were identified (e.g., CDI, RCMAS and DES), missing subscale scores were replaced by prorated scores derived from completed subscale items. Where less than 80% of subscale items were completed, missing values were not amended and the relevant subscale score and total score were not calculated. Three measures did not utilize subscales: the PAES, CRSQ and MC. In cases where at least 80% of the items were completed, missing values were replaced by a mean value

derived from all other completed items. The CRSQ and PAES utilized two and three independent scales respectively. Missing values were replaced by mean values derived from the completed items of the relevant scale.

Assumption testing

Assumption testing was conducted within groups for each of the dependent variables. Focus was given to the total scores of each dependent variable and where subscales were utilized, normality and homogeneity testing was also conducted on subscales. Seven measures were assessed at the total score level: the LEAS-C, RCMAS, CDI, DES-Negative and DES-Positive, MC, CRSQ-ME and CRSQ-NE and the PAES: Anger-out, Anger-suppression and Anger-Control. The LEAS-C, RCMAS, CDI and DES-Negative and DES-Positive were also explored at the subscale level. Normality testing was conducted using the Kolmogorov-Smirnov (for sample sizes greater than n = 50) and Shapiro-Wilks (for sample sizes less than n = 50). Homogeneity of variance was examined using Levene's equality of error variance test.

(i) Assumption testing at the total score level

With the exception of the LEAS-C, all dependent variables were affected by some degree of non-normality. The number of groups affected by non-normality varied for each variable. Ninety percent of those variables affected by non-normality involved 3 of the 5 groups or less. Violations to homogeneity were not evident for any of the dependent variables at the total score level.

(ii) Assumption testing at the subscale level

Assumption testing was conducted at the subscale level for the LEAS-C, RCMAS, CDI and DES. Non-normality was evident at the subscale level for each of these measures. Again the number of subscales affected by non-normality within a given measure varied. The extent to which non-normality among the subscales affected the 5 groups also varied. Forty three percent of these subscales affected by normality involved 3 groups or less. Violations to homogeneity were evident in 22% of the subscales.

(iii) Assumption testing conclusions

In sum, assumption testing revealed problems with normality and homogeneity for many of the dependent variables. The distributions of most variables were only marginally non-normal. Attempts were made to improve the distributions through the removal of outliers but the distributions remained nonnormal. The CDI was the most affected by nonnormality and showed a strong positive skew. This showed that most students responded to the CDI with low level reports of depression. Given that this was a normative sample of school children, this response was not totally surprising. Various transformations were attempted to improve the distribution, with little effect. Given that multiple comparisons between groups were to be conducted in this analysis, a statistical method which would control for Type 1 error was needed. Howell (1992) has argued that the analysis of variance is a very robust statistical procedure and is generally robust to assumption violations, particularly normality. It was potentially feasible to use parametric testing and as a precaution, to check significant results with further nonparametric testing (Kruskall-Wallis test). However, the unequal sample sizes of the groups were also of concern. Tomarkin and Serlin

(1986) argue that the analysis of variance test may be little affected even by variance inequalities when group sizes are approximately equal. However, in this study sample sizes were not equal with a range from n = 20 to n = 134. Howell (1992) suggests that when groups are of unequal sizes and differences in variances might occur, it is preferable to replace the usual analysis of variance criterion which uses a pooled estimate of within-groups variance with an alternative criterion proposed by Welch (1951). This criterion is robust to inequality of variance and almost certainly to non-normality also (Howell, 1992).

The Welch (1951) test is a parametric test and is therefore preferable to nonparametric testing given the loss of power associated with these analyses. However, before embarking on further analyses using the Welch statistic, the range in variances between the groups also required investigation. That is, if the smallest-to-largest range in variance between the groups exceeded the general guidelines of a threefold (Coakes & Steed, 1999) to fourfold (Howell, 1992) increase, then nonparametric testing may be more suitable. Thus, differences in the standard error for each measure at total score and subscale level were contrasted between the sociometric groups. The difference between the groups in standard error measurements were within the designated limits (< threefold the lowest value) for 74% of the comparisons. The remaining 26% of the comparisons marginally exceeded this limit but were within the fourfold limit suggested by Howell (1992).

The pattern that emerged from this exploratory work suggested that variability was related to the differences in sample sizes between the groups. That is, across the dependent variables, variance was generally lower in the average group, which had a

relatively large sample size, and variance was higher within the rejected subgroups, where sample sizes were lower. However, this pattern may also be in part explained by the nature of the dependent variables under investigation. That is, the vast majority of these variables were related to dimensions of emotion dysregulation and greater homogeneity on these dimensions in the normative group was also to be expected. Gender differences in the dependent variables may also have contributed to within group variability. If this were the case, smaller sample sizes would have been more greatly affected by this variability than larger sample sizes.

Given the above findings it was decided that the variability between the groups was appropriate for parametric testing. The between-group comparisons in the preliminary and main analyses were conducted with a series of Welch ANOVA (Analysis of Variance) tests. Significant findings were checked with nonparametric testing using the Kruskall-Wallis test for K independent samples.

RESULTS

Preliminary analyses

Gender effects

Gender differences have been found in a number of areas of emotional functioning such as emotion expression (Casey, 1993; Clay et al., 1996b; Cole, 1986; Hall, 1984) and communication of emotion (Zeman & Shipman, 1996). Gender findings in other domains such as emotion understanding, have been more equivocal (Terwogt & Olthof, 1989; Thompson, 1989). While gender was not a variable of interest in the current study, it was important to determine if gender differences were evident in the data given the potential influence of this variable on findings. Gender differences in

the emotion experience variables (total scores) - CDI, RCMAS, DES-Negative, DES-Positive and the three PAES scales, and the emotion process variables (total scores) - LEAS-C, CRSQ-Mad expectations and CRSQ-Nervous expectations, and RCMAS-Lie scale were explored with a Welch ANOVA test. This was conducted across the entire sample of n = 471. Means and standard deviations on the dependent variables for males and females are presented in Table 8.1.

Significant gender differences in emotion experience were found for the RCMAS, DES-Positive emotions, and all PAES scales, with females reporting significantly higher levels of anxiety, positive emotions, anger suppression and anger control, and males reporting significantly higher levels of anger-out expression. Significant gender differences in emotion processes were found for the LEAS-C. Consistent with adult findings and with the results from Study 1 of the present research, females had significantly higher levels of emotional awareness compared to males. A chi-square analysis revealed that gender differences in repression were not significant [$\chi 2$ (1) = .68, p = .41].

Table 8.1

Means and Standard Deviations on emotion style variables by gender

	Gender					
	Males (n = 245)		Females (n = 226)			
	M	SD	M	SD	*df*	*Welch*
Emotional Experience						
RCMAS	10.44	5.73	12.03	5.68	(1,466.6)	9.134**
CDI	8.93	6.83	8.23	7.99	(1,439.8)	1.04
DES Positive	30.91	5.14	32.16	4.30	(1,463.3)	8.27**
DES Negative	65.04	13.95	65.75	14.18	(1,463.4)	.30
PAES: Anger out	9.68	2.56	8.27	2.19	(1,466.3)	41.55***
PAES: Anger suppress	9.40	2.51	9.96	2.19	(1,466.2)	6.73**
PAES: Anger control	10.12	2.49	11.15	2.01	(1,461.0)	24.87***
Emotion process						
LEAS-C	34.89	4.85	37.15	4.81	(1,466.5)	25.69***
RCMAS-Lie subscale	2.13	2.34	2.30	2.26	(1,468.0)	.68
CRSQ Mad	9.09	4.18	8.69	3.81	(1,465.9)	1.21
CRSQ Nervous	9.52	4.22	10.12	3.99	(1,466.7)	2.53

$p < .05$, ** $p < .01$, *** $p < .001$.
Note: RCMAS = Revised Child Manifest Anxiety Scale; CDI = Children's Depression Inventory; DES = Differential Emotions Scale; PAES = Paediatric Anger Expression Scale; LEAS-C = Levels of Emotional Awareness Scale for Children; CRSQ = Children's Rejection Sensitivity Questionnaire.

Thus, significant gender differences were found in 50% of the dependent variables used in this study. Unfortunately it was not possible to include gender as a factor in subsequent analyses due to the small sample sizes of the rejected subgroups. An additional chi-square analysis was conducted to assess the distribution of males and females in the five peer groups. Significant differences in gender distribution were found [$\chi 2$ (4) = 10.14, p = .04]. Discrepancy between the observed and expected count of males and females in the groups appeared most evident in the aggressive-

rejected and withdrawn-rejected groups (see Table 8.2). Thus, it was possible that gender could influence the following analyses, particularly in relation to the RCMAS, DES-Positive, PAES and LEAS-C. This issue should be kept in mind when interpreting the findings.

Table 8.2

Observed and expected counts of males and females across the five groups

	Gender							
	Males (n = 156)				Females (n = 145)			
Groups	observed	%	Expected	%	Observed	%	Expected	%
AR[a]	13	8	18	12	22	15	17	12
WR[b]	19	12	13	8	6	4	12	8
NANWR[c]	10	7	10	7	10	7	10	7
Neg[d]	51	33	47	30	40	28	44	30
Av[e]	63	40	67	43	67	46	63	43

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Age effects

Evidence of age-related differences in emotional functioning are ubiquitous (Carroll & Steward, 1984; Casey, 1993; Donaldson & Westerman, 1986; Harter & Buddin, 1987; Wintre & Vallance, 1994). Given the narrow age range used in this research, age differences in the dependent variables were not expected. However, to clarify this expectation, a Welch ANOVA (Analysis of Variance) test was conducted with age as the independent variable and total scores for emotion experience and emotion process as the dependent variables. The majority of students were aged between 10 to 12 years

of age. Given the small number of children aged outside this age range (9 years, n = 8; 13 years, n = 3), age effects were examined within the age range of 10 to 12 years and the remaining students were not included in the analysis. Means and standard deviations are presented in Table 8.3. Significant age differences in emotional experiences were found for anxiety and anger control. Significant age differences in emotion processes were found for emotional awareness and angry and anxious rejection sensitivity. Younger students reported higher levels of anxiety and less anger control when compared to older students. Older students were more emotionally aware and reported less angry and anxious rejection sensitivity. These results were unexpected given the narrow age range in this sample and suggested higher levels of emotion regulation among older students. A chi-square analysis revealed that potential age effects were evenly distributed across the five social status groups, χ^2 (4) = 1.77, p = .78.

Table 8.3

Means and Standard Deviations on emotion style variables by age

	Age					
	10 years (n = 103)		12 years (n = 134)			
	M	SD	M	SD	*df*	*Welch*
Emotion Experience						
RCMAS	11.89	5.44	9.90	5.28	(1,216.4)	8.05*
CDI	8.65	6.13	7.12	6.11	(1,217.0)	3.58
DES Positive	31.83	4.90	31.94	4.46	(1,208.4)	.04
DES Negative	65.35	13.45	63.23	13.25	(1,217.8)	1.47
PAES: Anger out	8.87	2.48	8.64	2.28	(1,209.8)	.55
PAES: Anger suppress	9.54	2.55	10.06	2.09	(1,195.3)	2.77
PAES: Anger control	10.39	2.56	11.10	2.33	(1,208.5)	4.94*
Emotion processes						
LEAS-C	35.22	4.69	36.93	5.01	(1,226.0)	7.30*
RCMAS-Lie subscale	2.12	2.21	2.23	2.11	(1,214.2)	.16
CRSQ Mad	9.84	4.14	7.90	3.24	(1,184.3)	15.24**
CRSQ Nervous	10.53	4.39	8.99	3.56	(1,190.9)	8.31*

* $p < .05$, ** $p < .01$.

Between-group differences in aggression and withdrawal

Preliminary analyses were conducted to establish the extent to which the five peer groups differed from one another on peer nominations of aggression and withdrawal. While differences in these criteria have already been established between the rejected subgroups (i.e., levels of aggression and / or withdrawal were used as criteria for defining the rejected subgroups), levels of aggression and withdrawal within the neglected and average groups had not been clarified. Of concern was the possibility that unintended similarities in these defining criteria may exist between the groups and could potentially confound subsequent findings. Between-group comparisons in

aggression and withdrawal nominations were conducted using the Welch ANOVA test and significant group differences were found. Standardized means and standard deviations for aggression and withdrawal for the five groups are presented in Table 8.4. Comparison of mean aggression and withdrawal scores for the five groups revealed that the aggressive-rejected group received significantly higher nominations of aggression compared to the neglected and average groups and the withdrawn-rejected group received significantly higher nominations of withdrawal compared to the neglected and average groups.

Table 8.4

Standardized Means and Standard Deviations on peer nominations of aggression and withdrawal

Behaviour	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	*Welch*
Aggression	1.65	-.40	-.21	-.46	-.05	(4,78.7)	117.67***
	(.48)	(.48)	(.52)	(.62)	(.83)		
Withdrawal	-.29	1.79	-.24	.19	-.28	(4,79.9)	47.92***
	(.36)	(.72)	(.46)	(1.05)	(.75)		

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average; *** $p < .001$.

Main analyses

Between-group differences in emotion experiences and emotion processes were explored. Comparisons were made between the five sociometric groups - aggressive-rejected, withdrawn-rejected, nonaggressive-withdrawn-rejected, neglected and average. These comparisons sought to clarify if the emotion style of the aggressive-rejected subgroup differed from that reported by the normative average group and the

other groups, in particular, the withdrawn-rejected subgroup. Research hypotheses focused on differences between the aggressive-rejected subgroup and average group and between the aggressive-rejected subgroup and withdrawn-rejected subgroup. Analysis of Variance was used because it was possible to check for differences between the groups first providing some control for Type 1 error arising from the multiple comparisons.

Between-group differences were examined with a series of Welch ANOVA (Analysis of Variance) tests and a *p* value cutoff of .05. The rationale for the use of this statistic was explained earlier in this chapter and was based on concerns of unequal variances and unequal sample size. Apriori planned comparisons were used to contrast the aggressive-rejected, withdrawn-rejected, nonaggressive-nonwithdrawn-rejected and neglected groups to the average group. Contrast test results were based on equal variances not assumed. Group differences in total scores were examined separately from group differences in subscale scores. However, to facilitate the overall cohesiveness in reporting findings, results for the total scores and subscales for each measure are reported together.

Comparisons in emotion experiences

Depression

(1) The aggressive-rejected subgroup will report higher levels of interpersonal problems compared to the average group.

(2) The withdrawn-rejected subgroup will report higher levels of negative self-esteem compared to the average group and the aggressive-rejected subgroup will report levels of negative self-esteem comparable to the average group.

Means and standard deviations for depression scores for the five social status groups are presented in Table 8.5.

Table 8.5

Means and Standard Deviations for depression scores for the five groups

CDI	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg [d] (n=89)	Av [e] (n=130)	*df*	Welch
Mood	2.49	2.00	2.21	1.68	1.85	4, 67.1	.64
	(2.91)	(2.31)	(2.16)	(2.05)	(1.86)		
Interpersonal	1.49	.96	.53	.73	.71	4, 67.3	1.46
	(2.03)	(1.21)	(1.22)	(1.04)	(1.11)		
Ineffectual	2.14	1.96	1.89	1.59	1.56	4, 68.9	.71
	(2.43)	(1.72)	(1.79)	(1.72)	(1.78)		
Anhedonia	4.06	4.00	3.47	2.41	2.60	4, 68.4	3.43*
	(3.29)	(2.92)	(2.29)	(2.53)	(2.36)		
Esteem	1.49	1.68	1.42	1.36	1.37	4, 68.9	.27
	(1.88)	(1.41)	(1.68)	(1.55)	(1.50)		
Total	11.03	10.60	8.35	7.60	8.03	4, 66.7	1.75
	(9.82)	(7.69)	(5.77)	(7.14)	(6.18)		

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.
* $p < .05$.

Significant between-group differences were found for Anhedonia (Welch F (4, 68.4) = 3.43 $p < .05$). Planned contrasts revealed that both the aggressive-rejected and the withdrawn-rejected subgroups reported significantly higher anhedonia scores when compared to the average group. In addition, nonparametric testing using the Kruskall-Wallis test for K independent samples was conducted and significant between-group differences for Anhedonia were confirmed. Contrary to expectations, the aggressive-rejected subgroup did not report significantly higher levels of interpersonal problems

although the means were in the expected direction. The withdrawn-rejected subgroup reported marginally higher levels of negative self-esteem compared to the average group but this did not reach significance.

Anxiety

(3) The withdrawn-rejected subgroup will report higher levels of social concern compared to the average group and the aggressive-rejected subgroup will report levels of social concern comparable to the average group.

(4) The withdrawn-rejected subgroup would report higher levels of worry / oversensitivity and physiological symptoms compared to the average group and the aggressive-rejected subgroup will report levels of worry / oversensitivity and physiological symptoms comparable to the average group.

Means and standard deviations for anxiety scores for the five social status groups are presented in Table 8.6. Between-group differences in social concern approached significance ($p = .06$) with the withdrawn-rejected subgroup reporting higher levels of social concern compared to the average group. Contrary to expectations, between-group differences in worry / oversensitivity and physiological symptoms were not found.

Table 8.6

Means and Standard Deviations for anxiety scores for the five groups

RCMAS	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	Welch
Physiological	4.34	3.84	4.00	3.24	3.34	4, 71.0	1.91
	(2.34)	(2.29)	(2.34)	(2.30)	(2.20)		
Worry	5.03	5.32	4.35	4.57	4.82	4, 71.5	.52
	(2.71)	(2.84)	(3.01)	(2.83)	(2.87)		
Social	3.51	3.72	3.15	2.62	2.98	4, 69.6	2.42
Concern	(1.92)	(2.11)	(2.21)	(1.72)	(1.85)		
Total	12.89	12.88	11.50	10.43	11.14	4, 70.8	1.75
	(5.20)	(6.16)	(6.63)	(5.63)	(5.59)		

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Range of emotions: Positive

(5) The withdrawn-rejected subgroup will report lower levels of positive emotions and the aggressive-rejected subgroup will report levels of positive emotions comparable to those reported by the average group.

Contrary to expectations, between-group differences in positive emotions were not found. The means and standard deviations for DES Positive emotions the five groups are reported in Table 8.7.

Table 8.7

Means and Standard Deviations for DES positive emotions scales for the five groups

DES Positive	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	Welch
Joy	11.83	11.52	11.05	12.22	12.14	4,67.1	1.38
	(2.83)	(2.49)	(2.34)	(1.94)	(2.04)		
Interest	10.24	9.92	9.42	10.40	10.55	4,69.5	1.40
	(2.14)	(2.06)	(1.19)	(2.04)	(2.10)		
Surprise	9.17	8.76	9.05	9.23	9.41	4,69.1	.60
	(1.79)	(2.07)	(2.22)	(1.94)	(1.94)		
Total	31.34	30.20	29.53	31.85	32.09	4, 69.5	2.06
	(4.89)	(4.92)	(4.25)	(4.43)	(4.53)		

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Range of emotions: Negative

(6) The withdrawn-rejected subgroup will report higher sadness levels compared to the average group. The aggressive-rejected subgroup will report levels of sadness similar to those reported by the average group.

(7) The aggressive-rejected subgroup will report higher levels of anger compared to the average group while the withdrawn-rejected subgroup will report levels of anger comparable to the average group.

Between-group differences in negative emotions were also not found. The means and standard deviations for DES Negative emotions for the five groups are reported in Table 8.8.

Table 8.8

Means and Standard Deviations for DES negative emotions scales for the five groups

DES Negative	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	Welch
Guilt	7.63	7.60	8.53	8.19	8.25	4, 68.6	1.45
	(1.80)	(1.89)	(2.22)	(1.90)	(1.78)		
Shy	7.11	7.16	8.11	6.92	6.66	4, 69.5	1.45
	(2.49)	(1.95)	(2.64)	(2.07)	(2.36)		
Disgust	7.49	8.44	7.37	7.84	7.34	4, 68.7	1.14
	(2.49)	(2.92)	(2.41)	(2.52)	(2.33)		
Hostility	5.66	5.84	6.53	5.54	5.67	4, 69.5	.63
	(2.26)	(2.39)	(2.50)	(2.49)	(2.30)		
Shame	8.00	8.56	7.63	7.98	7.67	4, 69.4	.66
	(1.85)	(2.93)	(3.04)	(2.68)	(2.43)		
Sad	7.66	7.64	7.05	7.37	6.98	4, 68.2	.95
	(2.46)	(2.84)	(2.04)	(2.24)	(2.03)		
Contempt	6.60	7.28	6.05	6.74	6.58	4, 68.9	.79
	(2.82)	(2.67)	(2.04)	(2.21)	(2.25)		
Fear	6.37	7.64	6.26	6.53	6.40	4, 67.9	1.15
	(2.99)	(2.74)	(2.83)	(2.48)	(2.44)		
Anger	9.34	9.08	8.68	8.66	8.52	4, 68.5	.85
	(2.55)	(2.66)	(2.73)	(2.40)	(2.43)		
Total	65.06	69.24	66.21	65.76	64.08	4, 68.0	.72
	(12.90)	(15.21)	(15.50)	(13.51)	(13.07)		

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Anger Expression

(8) The aggressive-rejected subgroup will report higher levels of anger-out compared to the average group.

Means and standard deviations for anger expression scores for the five social status groups are presented in Table 8.9. Contrary to expectations, significant between-group differences in anger-out were not evident although the means were in the expected direction.

Table 8.9

Means and Standard Deviations for anger expression scales for the five groups

PAES	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	Welch
Anger-Out	9.57 (2.90)	9.04 (2.70)	9.10 (2.38)	8.65 (2.25)	8.83 (2.40)	4, 70.1	.79
Anger-Suppression	10.11 (2.34)	10.24 (3.00)	8.80 (1.85)	9.91 (2.45)	9.43 (2.36)	4, 72.6	2.12
Anger-Control	10.26 (2.45)	10.52 (2.54)	10.25 (2.17)	10.62 (2.48)	10.80 (2.35)	4, 71.8	.52

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Comparisons in emotion processes

Denial

(9) The aggressive-rejected subgroup will report higher levels of denial compared to the average group. The withdrawn-rejected subgroup will report levels of denial comparable to the average group.

Denial was assessed using the Lie subscale of the RCMAS. The means and standard deviations for this subscale were presented earlier in Table 8.10. Significant between-group differences in denial were not found. Contrary to expectations, all groups apart from the aggressive-rejected subgroup reported higher levels of denial when compared to the average group and the aggressive-rejected subgroup reported levels of denial lower than the normative group.

Table 8.10

Means and Standard Deviations for denial for the five groups

RCMAS	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	Welch
Lie	1.91 (2.23)	2.76 (2.78)	2.70 (2.36)	2.77 (2.57)	2.02 (2.14)	4, 70.3	1.84

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Repression

(10) The aggressive-rejected subgroup will have a higher proportion of repressors when compared to the other groups.

A chi-square analysis was conducted to investigate between-group differences in likelihood of being a repressor. No significant differences were found [$\chi 2$ (4) = 8.59, p = .07]. The observed and expected frequencies for repressor and non-repressor status for the five groups are presented in Table 8.11.

Table 8.11

Observed and Expected counts of repressor and non-repressor status across the five groups

Repressor status		AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)
Repressor	Observed count	7	7	5	39	53
		(20%)	(28%)	(25%)	(43%)	(41%)
	Expected count	13	9	7	34	48
		(37%)	(36%)	(35%)	(37%)	(37%)
Nonrepressor	Observed count	28	18	15	52	77
		(80%)	(72%)	(75%)	(57%)	(59%)
	Expected count	22	16	13	57	82
		(63%)	(64%)	(65%)	(63%)	63%)

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Rejection Sensitivity

(11) The aggressive-rejected subgroup will report levels of angry rejection sensitivity similar to those reported by the average group.

(12) The withdrawn-rejected subgroup will report higher levels of anxious rejection sensitivity compared to the average group.

Rejection sensitivity was assessed in two domains and these were angry expectations and anxious expectations of rejection. Means and standard deviations for angry and anxious expectations of rejection for the five social status groups are presented in Table 8.12. Consistent with expectations, the aggressive-rejected subgroup was not more rejection sensitive than the average group for angry rejection expectations.

Contrary to expectations, the withdrawn-rejected subgroup did not report significantly higher levels of anxious rejection sensitivity compared to the average group.

Table 8.12

Means and Standard Deviations for angry and anxious expectations of rejection for the five groups

CRSQ	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	Welch
Angry expectations	9.46 (3.59)	8.94 (4.03)	9.18 (4.67)	8.94 (3.98)	8.74 (3.92)	4, 70.9	.28
Anxious expectations	10.01 (3.75)	10.69 (4.80)	9.59 (4.80)	9.95 (4.26)	9.87 (4.18)	4, 70.7	.19

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Emotional awareness

(13) The aggressive-rejected subgroup will report lower levels of emotional awareness compared to the average group. The withdrawn-rejected subgroup will report levels of emotional awareness comparable to the average group.

Means and standard deviations for emotional awareness scores for the five social status groups are presented in Table 8.13. Contrary to expectations between-group differences in LEAS-C Total scores were not found. Between-group differences at the subscale level were also not significant.

Table 8.13

Means and Standard Deviations for emotional awareness scores for the five groups

LEAS-C	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	Welch
Self	32.14	31.08	33.60	33.25	32.22	4, 72.0	1.29
	(6.16)	(5.41)	(4.51)	(5.06)	(5.35)		
Other	29.17	26.56	31.10	29.62	29.43	4, 71.0	1.52
	(6.22)	(6.94)	(5.53)	(5.65)	(5.94)		
Total	35.46	34.32	36.90	36.46	36.71	4, 70.5	1.32
	(5.62)	(4.78)	(4.81)	(4.54)	(4.63)		

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

Post hoc analyses

1. Why were there so few differences between the groups?

(i) Social desirability effects

It had been predicted that the emotion style reported by the aggressive-rejected and withdrawn-rejected subgroups would differ. Unexpectedly the results did not support these predictions. This may have been related to factors arising from the identification of the subgroups. This issue is explored shortly. The current exploration of emotion styles also relied completely on self report material. This approach is not without considerable drawbacks, as highlighted by Bajuk, Relich, and Richardson (1992) who noted the potential for social desirability effects [e.g., responding in a manner perceived to be socially desirable to the examiner (Barefoot, 1992)]. One of the measures to identify the repressor and nonrepressor groups, the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960), is also used to assess this response style. To identify if social desirability effects potentially influenced the

results in the present study, a Welch ANOVA was conducted across the five sociometric groups. However, no significant differences in social desirability responding were evident. Means and standard deviations for the five sociometric groups are found in Table 8.14.

Table 8.14

Means and Standard Deviations for social desirability scores for the five groups

MCSDS	AR[a] (n=35)	WR[b] (n=25)	NANWR[c] (n=20)	Neg[d] (n=91)	Av[e] (n=130)	*df*	Welch
	5.77	6.40	5.37	6.56	6.35	4, 69.0	.95
	(2.89)	(3.16)	(2.93)	(2.88)	(2.79)		

[a] Aggressive-rejected; [b] Withdrawn-rejected; [c] Nonaggressive-nonwithdrawn-rejected; [d] Neglected; [e] Average.

(ii) Methodological considerations in sociometric research: Gender

Closer scrutiny of the methodology used to identify rejected subgroups was also undertaken posthoc. The procedures used in this study to identify sociometric groups and rejected subgroups replicated the method adopted by many other researchers. The proportion of children identified as rejected using these methods were similar to those reported by other researchers. Similarly the proportion of rejected children allocated to the aggressive-rejected, withdrawn-rejected and nonaggressive-nonwithdrawn-rejected subgroups was comparable to those reported in other sociometric studies (see Appendix A-1). However gender representation in the aggressive-rejected and withdrawn-rejected subgroups was not equivalent and the differences in gender balance between the two subgroups was significant [$\chi 2$ (1) = 8.85, p = .003].

The direction of this gender balance also appeared different from other studies. Figures reported in prior studies with regard to the gender composition of rejected subgroups suggest that approximately equivalent gender numbers or a proportion slightly favouring males could be expected within the aggressive-rejected subgroup (e.g., Verschueren & Marcoen, 2002; Zakriski & Coie, 1996). In the present study, the proportion of males to females in the aggressive-rejected group favoured females, who comprised 63% of the subgroup. The converse representation was found in the withdrawn-rejected subgroup where 76% of the subgroup were males. These figures were all the more interesting when the gender composition of aggressive and withdrawn students who were *not* rejected, was included in the picture.

For instance, of all males identified by their male peers as highly aggressive, only 30% of these were also rejected by their male peers (37% of the aggressive-rejected group). Seventy percent of these highly aggressive males were not rejected by their male peers (67% of the aggressive-nonrejected group). It would appear that in this sample, aggressive behaviour among males was more acceptable to other males than was not. Sixty percent of all females identified by their female peers as highly aggressive were also rejected (63% of the aggressive-rejected group) while 40% of aggressive females were not rejected by their female peers (33% of the aggressive-nonrejected group). This suggested that aggressive behaviour among females was more strongly associated with rejection than aggressive behaviour among males.

Withdrawn behaviour was less strongly associated with rejection for both males and females. This was most evident among females where 79% of females identified as exhibiting high levels of withdrawn behaviour were not rejected compared to 56% of

males showing withdrawn behaviour. Behavioural descriptors such as shyness, worry, fearfulness and solitude did not appear to be as strongly associated with rejection for females as they were for males.

It would appear that the relationship between aggression and rejection for males and females may have differed in this Australian sample from that reported in other sociometric studies. Many of these have used North American samples. For instance, prior research has found that aggressive behaviour distinguishes well between rejected and accepted males, but is less effective in distinguishing acceptability among females (Coie, Dodge & Kupersmidt, 1990). To explore this issue more closely, the relationship between peer acceptance and the behaviours of aggression and withdrawal were examined for males and for females. The standardized social preference score (like-least nominations subtracted from like-most nominations) was used to indicate social acceptance. Consistent with prior research, the strength of the relationship between social acceptance and behaviour was found to differ for males and females. However in this sample, withdrawal was more strongly related to low social acceptance in males and aggression was more strongly related to low social acceptance in females (see Table 8.15). Differences in the strength of the relationship between social preference and aggression and between social preference and withdrawal between males and females were examined. The negative relationship between social preference and aggression was significantly stronger for females than for males (2-tailed, $\alpha = .05$, $z_{obt} = 3.51 > z_{.025} = 1.96$) while the negative relationship between social preference and withdrawal was significantly stronger for males than for females (2-tailed, $\alpha = .05$, $z_{obt} = 3.13 > z_{.025} = 1.96$).

Table 8.15

Pearson correlations of standardised aggression and withdrawal scores and social preference for males and females

	Social Preference	
Peer nominations	Males (n=245)	Females (n=226)
Aggression	-.28**	-.54**
Withdrawal	-.45**	-.20**

** $p < .001$

Given that several descriptors had been used to gather nominations for withdrawn and aggressive behaviour, it was possible to look more closely at the particular behaviours that appeared to distinguish between acceptability for males and females. These are found in Table 8.16. These results suggest that in this sample, males found all withdrawn behaviours more unacceptable in their male peers than females found these same behaviours in their female peers. This was particularly evident for the behaviours of *alone* and *worries.* Using a two-tailed test at $\alpha = .05$, the relationship between social preference and *alone* and social preference and *worries* was found to be significantly stronger for males than for females; $z_{obt} = 3.48 > z_{.025} = 1.96$ and $z_{obt} = 3.80 > z_{.025} = 1.96$ respectively.

Females appeared to find both *fighting* and *teasing* less acceptable in their female peers than males found the same behaviours in their male peers. The relationship between social preference and *fighting* and social preference and *teasing* was significantly stronger for females; $z_{obt} = 2.69 > z_{.025} = 1.96$ and $z_{obt} = 3.0 > z_{.025} = 1.96$, respectively. The relationship between social preference and *afraid* and social preference and *shy* was not significantly different between males and females.

Table 8.16

Pearson correlations between standardized behavioural descriptors of aggressive and withdrawn behaviour and social preference for males and females.

		Social Preference	
Peer nominations		Males (n=245)	Females (n=226)
Aggression	Fights	-.31**	-.54**
	Teases	-.22**	-.47**
Withdrawal	Afraid	-.39**	-.27**
	Alone	-.53**	-.27**
	Shy	-.21*	-.07
	Worry	-.39**	-.07

** $p < .001$

These results suggest that the relationship between social preference and social behaviour differed for males and females and differed in a direction contrary to that found in other studies. That is, while some researchers have reported that aggression more clearly distinguishes social acceptance among males (e.g., Coie et al., 1990), in this study aggression more clearly distinguished social acceptance among females. The extent to which the representation of males and females in the aggressive-rejected and withdrawn-rejected groups impacted on between-group differences in emotion experiences and emotion processes is not clear. Further post-hoc descriptive analyses assessing gender differences between groups were conducted (see Appendix D-5), but the relatively small sample sizes of some groups (e.g., n = 6; withdrawn-rejected females) precluded formal statistical analysis. Descriptively, the pattern of means suggested that as hypothesized the withdrawn-rejected males reported higher levels of depression, anxiety and negative emotions and lower levels of positive emotions when

compared to males in the aggressive-rejected or average groups. However, the pattern of means with regard to emotion processes was not consistently in the expected directions.

2. The relationship between emotion experience and emotion process: Contrasting the aggressive-rejected and average groups.

Many of the research hypotheses proposed in the present study focused on comparisons between the aggressive-rejected and withdrawn-rejected subgroups in relation to the average group. That is, hypotheses about the emotion style of the aggressive-rejected group were relative to the emotion style expected of withdrawn-rejected group. For instance, it had been expected that the emotion experiences of the withdrawn-rejected group would reflect higher levels of distress while the experiences of the aggressive-rejected subgroup would reflect little distress. One of the primary unexpected findings was that the withdrawn-rejected group did not report more distress. In order to gain greater insight into the emotion processes of the aggressive-rejected subgroup, posthoc analyses focused on comparisons between the aggressive-rejected and average groups. The relationship between emotion processes and one emotion experience variable, anger expression, was explored. Anger expression was chosen because at face value it seemed that this variable would be particularly relevant to the aggressive-rejected subgroup. The correlation between emotion processes and anger expression within the aggressive-rejected subgroup and the average group are presented in Table 8.17.

Table 8.17

Pearson correlations between emotion processes and anger expression style: Contrasting the aggressive-rejected subgroup and average group.

	Aggressive-rejected (n=35)			Average (n=130)		
Emotion Processes	Anger Out	Anger Suppress	Anger Control	Anger Out	Anger Suppress	Anger Control
Repression	-.14	-.03	-.05	-.33**	.03	.25**
Denial	-.36*	.31	.35*	-.16	.05	.10
Rejection Sensitivity[a]	.45**	-.20	-.34*	.12	.02	-.12
Emotional Awareness	.02	-.09	.28	-.19*	.19*	.15

[a] Angry rejection sensitivity; * $p < .05$, ** $p < .01$, 2-tailed.

In the aggressive-rejected subgroup higher levels of denial were associated with higher self-reports of anger control. This relationship was not evident in the average group. Angry rejection sensitivity was associated with higher levels of anger out expression in the aggressive-rejected subgroup. Again this relationship was not evident in the average group. Repression was not related to anger expression in the aggressive-rejected subgroup but was associated with greater anger control and less anger out in the average group. In general, emotional awareness was not significantly related to anger expression in the aggressive-rejected group. It is possible that the small sample size prevented the positive relationship between emotional awareness and anger control reaching significance ($r = .28$, $p = .10$, 2-tailed). In the average group higher levels of emotional awareness were associated with less anger out, greater anger suppression and less strongly, greater anger control.

DISCUSSION

The purpose of the present study was to explore the emotion style reported by the aggressive-rejected group and to compare this to the emotion styles reported by other groups. Focus centred on differences between the aggressive-rejected subgroup and the average group and the aggressive-rejected and withdrawn-rejected subgroups.

Preliminary investigations revealed significant gender differences in 4 of the 9 dependent variables (total scores). Three of these were emotion experience variables - anxiety, positive emotions and anger expression and one was the emotion process variable of emotional awareness. Gender was also found to be unequally distributed across the groups, most notably in the aggressive-rejected and withdrawn-rejected subgroups. The direction of the gender imbalance appeared contrary to prior research and expectations, with more males than females in the withdrawn subgroup and more females than males in the aggressive subgroup. In general, gender distributions have not been reliably reported in sociometric studies and it was difficult to establish the significance of the direction of this gender imbalance. Overall, the extent to which gender-related issues effects impacted on the results of the present study remains unclear.

The results from the main analysis of this study suggested there was little difference in the emotion styles reported by the groups, although the means were frequently in the predicted direction. Posthoc analyses focusing on the aggressive-rejected subgroup and average group indicated that while between-group differences in emotion processes had not been found, the relationship between emotion processes and anger expression did differ between the two groups.

1. Differences in emotion experiences

Between-group differences in depression, anxiety, range of positive and negative emotions and anger expression style were explored in this study. Aside from depression, prior investigations in these areas have been scant, particularly with rejected subgroups. The aim of these explorations was to consolidate earlier findings suggesting that the emotional experiences of the aggressive-rejected subgroup were frequently comparable to the emotional experiences of the average group. Contrary to this, it was expected that the emotional experiences of the withdrawn-rejected subgroup would differ from the emotional experiences reported by the average group and would reflect relatively higher levels of emotional distress. Potentially this could be expressed through higher levels of negative emotions and / or low levels of positive emotions. It was expected that the aggressive-rejected group would differ from the average group in reporting higher levels of interpersonal difficulties.

Depression

Recent explorations of emotions among rejected subgroups have focused on subgroup differences in depressive symptomatology (e.g., Boivin et al.,1994; Hecht et al., 1998). On the basis of conclusions from these studies and general findings on self-report differences between rejected subgroups it was expected that when compared to the average group, the aggressive-rejected subgroup would report higher levels of interpersonal problems and that the withdrawn-rejected subgroup would report higher levels of negative self esteem. The negative self-esteem levels reported by the aggressive-rejected subgroup were expected to be similar to those reported by the average group. Significant differences between the groups were not found for interpersonal problems or self esteem, although the means were in the expected

direction for these subscales, particularly for interpersonal problems. Unexpectedly, the aggressive-rejected and withdrawn-rejected subgroups were found to report significantly higher levels of anhedonia compared to the average group. While some support for anhedonia symptoms among the withdrawn-rejected subgroup has been found (e.g., Hecht et al., 1998), the higher levels of anhedonia reported by the aggressive-rejected subgroup were not expected. Hecht et al., (1998) also found that the neglected group reported significantly higher levels of anhedonia compared to the average group and this was not found in this study. In the same study, Hecht and colleagues found that the aggressive-rejected subgroup reported higher levels of ineffectiveness compared to the other groups and this also was not found in the present study. However, the significantly higher levels of anhedonia reported by the aggressive-rejected and withdrawn-rejected subgroups in the present study are somewhat questionable. There are several reasons for this. For instance, of all the dependent variables, the CDI was the most affected by nonnormality. Variability in anhedonia scores across the groups was also relatively high and highest among the CDI subscales. In addition, the reliability estimates for the CDI subscales, particular for the interpersonal problems, negative self-esteem and anhedonia, were relatively modest (alpha range .63 - .67).

Anxiety

On the basis of prior evidence linking behavioural withdrawal with anxiety (Hymel, Franke & Freigang, 1985) and general research evidence suggesting that the withdrawn-rejected subgroup exhibit an approach or monitoring coping style (e.g., vigilance, over-arousal, Zakriski et al., 1997) it was predicted that the withdrawn-rejected subgroup would report higher levels of social concern, worry / oversensitivity

and physiological symptoms compared to the average group while the aggressive-rejected subgroup would report levels of social concern, worry / oversensitivity and physiological symptoms similar to the average group. Between-group differences in anxious symptoms were not found. Descriptively, the withdrawn-rejected subgroup reported higher levels of social concern compared to the average group although this difference failed to reach significance. The levels of social concern reported by the aggressive-rejected subgroup were also relatively elevated, which was not expected. Also contrary to expectations, the aggressive-rejected subgroup reported higher levels of physiological symptoms than the withdrawn-rejected subgroup although again, these differences were not statistically significant.

Positive emotions and negative emotions

Between-group differences in positive emotions and negative emotions were also examined. It was predicted that the withdrawn-rejected subgroup would report a lower positive emotion score when compared to the average group while the positive emotions score of the aggressive-rejected subgroup would be similar to that reported by the average group. Significant between-group differences in positive emotions were not found, indicating that positive emotion levels reported by the aggressive-rejected subgroup were similar to the average group. While not statistically significant the positive emotions score reported by the withdrawn-rejected subgroup was lower than that reported by the average group. Caution was taken in interpreting group differences in the subscales of the total positive emotions scale as the internal consistency of these scales was found to be generally weak [e.g., Cronbach alpha values for two of the three subscales was $\alpha = .45$ and $\alpha = .46$ (Interest and Surprise respectively)].

It was also predicted that the withdrawn-rejected subgroup would report higher levels of sadness compared to the average group, while the aggressive-rejected subgroup would report levels of sadness comparable to the average group. Once again, between-group differences failed to reach significance, providing support for the prediction that the aggressive-rejected group would not report elevated levels of sadness.

Anger expression

By definition, the aggressive-rejected subgroup exhibited high levels of aggressive behaviour toward others. On the premise that, while not veridical, outward expressions of anger and aggressive behaviour did overlap, it was predicted that the aggressive-rejected subgroup would report higher levels of anger-out expression compared to the average group. Between-group differences were not significant although again, the means were in the expected direction. The lack of between-group differences in anger-out expressions was somewhat surprising although several explanations for this result are plausible. The significant difference in gender representation between the aggressive-rejected and withdrawn-rejected subgroups may well have dampened group differences in anger-out expression. That is, preliminary analyses had revealed that males reported significantly higher levels of anger-out compared to females and yet there were notably more males in the withdrawn-rejected subgroup than females and fewer males in the aggressive-rejected subgroup than females. Perceptual disparities arising from independent sources of information, i.e., self-report and other-report assessment, should also be considered. Posthoc analyses provided some support for this view, indicating higher levels of denial were related to higher self-reported levels of anger control in the aggressive-

rejected subgroup. In addition, it is possible that the aggressive behaviour exhibited by the aggressive-rejected subgroup may be conceptually dissimilar to the aggressive behaviours described in the assessment which arise from losing one's temper.

This research also sought to explore processes which could potentially account for the low levels of distress reported by the aggressive-rejected subgroup. Unfortunately, evidence to support the expectation of low-distress was not found in the present research. That is, the distress levels of the aggressive-rejected subgroup did not differ from the distress levels reported by the withdrawn-rejected subgroup. Expectations of group differences in emotion processes were somewhat conditional on the expectations of differences in reports of emotion experiences and as noted these were not found. Yet numerous earlier studies substantiated self-report differences between the aggressive and withdrawn-rejected subgroups and thus, further exploration of processes variables appeared warranted (e.g., Asher et al., 1991; Hymel et al,, 1993; Parkhurst & Asher, 1992). With these limitations in mind, it was predicted that the aggressive-rejected subgroup would report higher levels of denial and repression and lower levels of angry rejection sensitivity and emotional awareness compared to the average group. It was expected that the withdrawn-rejected subgroup would report higher levels of emotional awareness and anxious rejection sensitivity compared to the average group

2. Differences in emotion processes

Prior research found that unlike other rejected groups, the aggressive-rejected subgroup reported little distress (Boivin et al., 1989; Parkhurst & Asher, 1992; Williams & Asher, 1987). Potential explanations for this lack of distress were

explored here and these included denial, repression, angry and anxious expectations of rejection and emotional awareness.

Denial

Two avoidant strategies investigated in this study were denial and repression. Denial was conceptualized as the tendency to present oneself in a favourable light, and to deny flaws and weaknesses. It was predicted that the aggressive-rejected subgroup would report high levels of denial compared to the average group. Given the distressed nature of the self-report profile of the withdrawn-rejected subgroup, it was expected that the denial scores of this group would be comparable to the normative group.

Significant between-group differences in denial were not found. In fact, the denial scores reported by the aggressive-rejected subgroup were marginally lower than those reported by the average group. However, posthoc analyses revealed that higher levels of denial were related to higher reports of anger control and lower reports of anger out in the aggressive-rejected group. This suggested that the more aggressive-rejected children use denial the more they report their own behaviour to be socially conforming. This relationship was not evident in the average group. Thus, these results suggest that the aggressive-rejected group use denial to avoid; in this case to avoid acknowledging the aversiveness of their own behaviour.

Repression

It was also possible that the aggressive-rejected subgroup reported little distress because they utilized a repressive coping strategy. It was predicted that the

aggressive-rejected subgroup was more likely to be repressors than the other groups. Between-group differences in the likelihood of being classified a repressor were not found. In fact, rejected subgroups were less likely to be repressors than the neglected group (43% repressors) or the average group (41% repressors). When comparing repressors within rejected subgroups, the aggressive-rejected subgroup had the least number of repressors (20%). Posthoc analyses were consistent with these findings and indicated that while repression was associated with reduced anger out expressions and enhanced anger control in the average group, repression did not work effectively to alter behavioural expressions of anger for aggressive-rejected children. Thus, some support for the view that the aggressive-rejected subgroup use defensive strategies is provided by these results but support was evident only for denial and only in relation to self-reports of behavioural regulation.

Rejection sensitivity

Considerable evidence has accumulated regarding the social information biases demonstrated by aggressive individuals. According to the social information processing model proposed by Dodge and colleagues (1980; 1982) it would be expected that highly aggressive children would perceive ambiguous feedback from others as hostile and would respond to such feedback with heightened anger and aggression. This response style is encapsulated in Downey and colleagues' (1997) rejection sensitivity construct. Interestingly, Zakriski and Coie (1997) found that aggressive-rejected children reported ambiguous feedback from their peers more positively than other groups. This would suggest that the aggressive-rejected subgroup were not rejection sensitive. To explore this issue further, between group differences in angry and anxious expectations of rejection were explored. Given prior research

findings it was expected that the aggressive-rejected subgroup would report levels of angry rejection sensitivity similar to the average group. The high distress previously reported for those in the withdrawn-rejected group, suggested they would report high levels of anxious rejection sensitivity.

No significant group differences were found indicating that neither the aggressive-rejected nor withdrawn-rejected subgroups differed from non-rejected groups in their levels of rejection sensitivity. However, posthoc analyses revealed that outward expressions of anger were related to expectations of rejection in the aggression-rejected subgroup while anger expression was not related to expectations of rejection in the average group. These results are consistent with social information processing model of aggression proposed by Dodge and colleagues (1980; 1982) and suggest that the aggressive behaviour of aggressive-rejected children is related to heightened expectations of rejection from peers. The model further states that these expectations are activated by the ambiguous responses of others toward self. This conclusion is difficult to reconcile with Zakriski and Coie's (1996) finding that aggressive-rejected children report ambiguous and negative feedback from others more positively when directed toward themselves than when directed toward others. Differences in the methodological approach taken to evaluate appraisal of feedback from others may in some way account for these different findings.

Emotional awareness

A major component of the present research involved the development of a performance based measure to assess levels of emotional awareness in children. The development of this measure made it possible to assess whether the low distress levels

reported by the aggressive-rejected subgroup were reflective of a more pervasive deficiency in the ability to identify emotions in oneself and in others. It was predicted that the aggressive-rejected subgroup would report lower levels of emotional awareness when compared to the average group while the withdrawn-rejected subgroup was expected to report emotional awareness levels comparable to the normative group. Between-group differences in emotional awareness were not found, suggesting that the low distress levels reported by this group were not indicative of generally poorer awareness of emotions *per se*. Posthoc analyses generally supported these findings. However, the correlation between emotional awareness and anger control was of moderate magnitude ($r = .28$, $p = .10$, 2-tailed). This suggests that awareness is to some degree positively related to anger control. In contrast, for the average group, higher levels of emotional awareness were related to lower levels of anger out and higher levels of anger suppression. The relationship between emotional awareness and anger control approached significance ($r = .15$, $p = .08$, 2 - tailed). It would appear from these results that being aware of emotions may help children in the average group to regulate expressions of anger.

Limitations

A number of limitations are associated with the present study. Several of these are inherent to sociometric studies. For example, the processes involved in the identification of rejected subgroups resulted in relatively low group sizes. This in turn resulted in low statistical power. The need to balance power and specificity in terms of identifying particular risk groups arises in many contemporary sociometric studies. It is an issue that is not easily resolved. High variability within the groups was also observed for some variables and was particularly evident among the rejected

subgroups. It is likely that this problem relates in part to the relatively small sample sizes used in the present study, but also likely reflects considerably heterogeneity with regard to emotional responding within these groups. This may well be a reflection of gender differences in the dependent variables.

Gender has not featured as significant factor in most sociometric studies to date. However, gender presented as an important consideration in the present research. Preliminary analyses indicated significant gender differences for approximately half of the dependent variables. Yet the sample sizes of rejected subgroups did not permit the analysis of gender within groups.

Potential sampling differences also arose in the present study and these were related to gender. Preliminary analyses revealed gender imbalances across the 5 groups. This particularly affected the aggressive-rejected and withdrawn-rejected subgroups. The direction of this imbalance was different to that reported in other sociometric studies with more males than females in the withdrawn-rejected subgroup and more females than males in the aggressive-rejected subgroup.

Research focusing on emotion variables among rejected subgroups is in its infancy. The issue of gender in sociometric studies remains a difficult one to resolve. At the very least, increasing attention will need to be given to the significance of gender in emotion research, particularly where small subgroups will be identified.

Other limitations relate to the measures used in the present research. For instance, data on the dependent variables was derived entirely from self-report measures.

Posthoc analysis suggested that social desirability responding did not unduly influence children's responses. However a more complete picture would be provided if the information gathered was collated from more than one perspective. In addition, many of dependent variables had marginal internal reliability coefficients (e.g., < .70), particularly when examined at the subscale level.

This study sought to explore the emotion style of the aggressive-rejected subgroup and to clarify how this differed from the emotion style of other groups. In general, the results suggest that the emotion experiences and processes of those in the aggressive-rejected group did not differ notably from those in the withdrawn-rejected group. Posthoc investigation suggested that the relationship between emotion processes and anger expression in the aggressive-rejected subgroup differed from that found in the average group. The general pattern that emerged suggested that anger expression was related to emotional awareness in the average group while anger expression was related to denial in the aggressive-rejected subgroup. The following chapter summarises and concludes the present research.

Chapter Nine

SUMMARY AND CONCLUSIONS

The present research focused on emotion styles and compared self-reports of emotion experience and emotion processes between the aggressive-rejected group and other groups. Three studies were involved in this project. The first of these focused on the development of a measure to assess levels of emotional awareness in children. Study Two was intended to be the main study of this research, but a relatively low participation rate of 36% meant it was not possible to identify rejected subgroups. Study Three was a replication of the second study using passive consent procedures and resulted in a participation rate of 82%. This was the major study of the present research and focused on exploring emotion style differences between five groups. A summary of the contributions from each of these studies follows.

Development of a measure of Emotional Awareness

The first study was devoted to the development of a measure to assess differences in the structural awareness of emotions in children. The aim behind the development of this measure was to provide a performance-based assessment of the ability to identify emotions in oneself and in others. Conventional assessments of emotion understanding in children have required subjects to identify discrete emotions, for example express a named emotion or name an expressed emotion (e.g., Denham, 1986). Other assessments including some of those used in Study Three of this research, require children to report the frequency of discrete emotional experiences, for example, the Children's Depression Inventory (CDI: Kovacs, 1985) or the Revised Child Manifest Anxiety Scale (RCMAS; Reynolds, 1980). In contrast, the Levels of

Emotional Awareness Scale for Children (LEAS-C) required children to generate responses to evocative scenarios, providing information on their ability to be aware of emotions in oneself and in others. The findings from Study One provided preliminary data to suggest that individual differences in emotional awareness could be reliably identified. Thus, the LEAS-C was used in Study Two and Study Three as a component of emotion processes, to assess awareness of emotions between the aggressive-rejected subgroup and other groups.

Sampling issues in sociometric research.

Two primary methodological problems were encountered in this study. The first of these was low participation rates. This poses particular difficulties for the sociometric researcher because the sociometric information provided by participants is less comprehensive than the information that would be provided by higher participant numbers. It was clear from the data collection problems in this study that specific procedures were required to obtain the high participation rates necessary to identify rejected subgroups. A review of sociometric literature not only reinforced the need for high participation rates but drew attention to frequent lapses in the methodological rigor of reporting sociometric studies (e.g., Zakriski et al., 1999). For example, failing to report how participants were recruited or failing to distinguish the participation percentage from the potential participant pool. It became clear that researchers in this field often fail to note the broader long-standing recruitment processes involved in successful sociometric research, and to acknowledge that data collection processes are frequently dependent on long-established networks between the research and school-associated bodies. In the absence of these conditions researchers have often resorted to passive consent procedures (Noll et al., 1997).

The low participation rates encountered in Study Two also drew attention to the potential for bias in classroom-based research. That is, the risk that active consent guidelines may contribute to reducing the participation rates of the most at-risk children targeted in the research (see Appendix C-9).

Emotion styles of aggressive-rejected children

Study Three focused on emotion style differences between the aggressive-rejected subgroup and other groups. This encompassed assessment of emotion experiences and emotion processes and these were contrasted over five sociometric groups. This methodological approach was consistent with most prior studies investigating differences among subgroups of rejected children and in particular, was consistent with recent contemporary studies exploring between-group differences in emotion experience (e.g., Boivin et al.,1994; Hecht et al., 1998). One advantage of this approach is that a broad base of information is provided from groups that differ in their social acceptance, behavioural style and risk-status. This study focused on the aggressive-rejected subgroup. Thus, research hypotheses were directed to the emotion experiences and emotion processes reported by this group, and primary attention was given to how these compared to reports from the average group and the withdrawn-rejected subgroup. The reasons for this particular focus were elaborated in the introduction.

1. Emotion experiences

The aggressive-rejected subgroup was found to report emotion experiences which were similar to the average group. It was expected that the emotion experiences

reported by the withdrawn-rejected group would differ from the aggressive-rejected and average groups and reflect higher levels of distress. They did not. Thus, one of the main expectations of this research – that the withdrawn-rejected subgroup would report high levels of distress than the aggressive rejected and average groups was not supported.

It could be argued that this lack of effect reflected an overriding developmental difficulty in children's ability to acknowledge and track negative emotions (Haviland-Jones, Gebelt, & Stapley, 1997). However, a considerable volume of research weighs against this with evidence that children can accurately self-report negative affect (e.g., Blumberg & Izard, 1985, 1986; Boyd & Gullone, 1997; Clay, Hagglund, Kashani, & Frank, 1996; Muris, Merckelbach, Schmidt, Gadet, & Bogie, 2001). Another possibility was that the lack of expected between-group differences in emotion experience was a reflection of the gender imbalance between the aggressive-rejected and withdrawn-rejected subgroups. This issue is discussed in greater detail below.

2. Emotion processes

Explorations of emotion processes were conducted between the groups. However, differences between the groups in emotion processes were perceived to be conditional on differences in reports of emotion experiences and these were not found. Therefore the expectation of between-group differences in emotion processes was somewhat diminished as a result of the lack of group differences in emotion experience. Between-group differences in emotion processes were not found. However, posthoc exploration of the relationship between emotion processes and anger expression

between the aggressive-rejected and average groups was more fruitful. The results indicated that emotion processes were related to anger expression in different ways in the two groups. In the average group anger expression was related to emotional awareness while in the aggressive-rejected subgroup, anger expression was related to denial and rejection sensitivity. Research in the area of emotion processes among rejected subgroups has only just begun and further research in this area is clearly warranted.

Methodological issues in sociometric research

Gender has been rarely considered as an independent variable in sociometric studies. Moreover, the gender composition of sociometric groups has not always been reported in research methodology (e.g., Hecht et al., 1998; Hymel et al., 1993). This lack of gender emphasis in prior studies has raised several questions in this research. For instance, is the representation of males and females in the aggressive-rejected and withdrawn-rejected groups notably different from what is found in other studies? If there is a difference, is this significant and what does this reflect – sociocultural issues, aspects of the Catholic school system or other factors? What are the implications of differences in the gender composition of subgroups for comparability between studies? Given that there have been few sociometric studies conducted with Australian elementary school children these questions are difficult to answer at present. However, these questions highlight the need for a greater emphasis on gender in future sociometric research and the need for more culturally diverse sociometric samples.

The gender composition of samples will become increasingly important to consider in sociometric research focusing on emotion variables. Several gender-related issues arose in the present study. Significant gender differences were found for over half of the dependent variables. Unfortunately, gender was not equally distributed across the five sociometric groups and this discrepancy was significant between the aggressive-rejected and withdrawn-rejected groups. The direction of this imbalance also appeared contrary to figures reported in other sociometric studies. In the present study there were more males than females in the withdrawn-rejected subgroup and more females than males in the aggressive-rejected subgroup.

The extent to which these gender issues influenced the results of the present research is difficult to clearly ascertain. Given that gender has not been reliably identified in sociometric research, it is possible that some of the findings from prior studies are also a function of gender distributions and less related to specific characteristics of the rejected subgroups. However, posthoc analyses did provide some support for the research hypotheses. While speculative, the results suggested that males in the withdrawn-rejected subgroup reported higher levels of distress than males in the aggressive-rejected or average groups. This pattern was not evident for females in the withdrawn-rejected group. The gender differences in emotion experience within the withdrawn-rejected subgroup appear related to the fact that in this sample, withdrawn behaviours such as being alone and worry were more strongly associated with low social acceptance among males than among females. This pattern appears contrary to the findings from other sociometric studies where low social acceptance among males has been more clearly associated with aggressive behaviours. In the present study

aggressive behaviour was more strongly associated with low social acceptance among females.

There are challenges here for researchers as sample sizes of rejected subgroups rarely permit exploration of gender as a factor. It is not clear at this stage how this issue may be best resolved although, larger samples, control of gender via male only or female only samples or statistical control are clearly important considerations. What is evident is that future research focusing on emotion variables among rejected subgroups will require careful consideration of this issue.

In addition to this gender issue, it is also important to consider in general the constraints associated with sociometric research. Most of these were identified in detail in Chapter Seven. Further drawbacks can be identified in relation to statistical issues. For example, sociometric research entails the identification of groups and subgroups of subjects. Classification systems such as these inevitably lead to a reduction in sample size as some subjects are retained in groups while others are not. Smaller samples often have greater group variability which in turn is associated with a reduced likelihood of identifying between-group differences (or variability in group findings from one study to the next). In Study Three, from a potential pool of 471 subjects, the present study focused on five sociometric groups which resulted in the inclusion of 301 participants. From this group primary research attention centred on the aggressive-rejected subgroup with n = 35, representing approximately 7% of the total potential pool of data.

The reduction in potential data and associated statistical restraints, alongside gender differences in more than half of the dependent variables may well have contributed to the lack of findings in this research. The results found here suggest that there is little difference in the emotion styles of aggressive-rejected and withdrawn-rejected children. This would appear unlikely given clear differences in the overt behaviours of these two groups and a robust pool of evidence suggesting that the perceptions and coping style of aggressive-rejected children differ markedly from those found in the withdrawn-rejected subgroup. Clearly, further exploration of emotion variables among rejected subgroups will require careful consideration of these methodological issues.

Conclusion

Aggressive-rejected children are at-risk for the development of significant longer term mental health problems (Coie, Terry, Lenox, & Lochman, 1995; Coie et al., 1992). Aggressive-rejected children are also likely to remain rejected by their peers for longer than any other rejected group (Cillessen et al., 1992; Vitaro et al., 1992). Children who experience the pervasive stress of rejection from their peers and who are also aggressive have been identified as "a population of youth at great risk" (Zakriski et al., 1997, p 429). Yet for all this concern, prior research has suggested aggressive-rejected children report as though they are not rejected. The findings from Study Three call this assumption into question. That is, the aggressive-rejected subgroup reported levels of distress similar to other groups. However, the expectation that the aggressive-rejected subgroup report low levels of distress has been framed in reference to the distress reported by the withdrawn-rejected group. This subgroup did not clearly report more distress and this result was not expected. Posthoc analyses

suggested a complex relationship between gender, social behaviour and social acceptance and emotion experiences, which is deserving of further research.

It was expected that emotion process variables would differ for the aggressive-rejected group and in general, they did not. However, posthoc analyses did provide some evidence that the relationship between emotion experiences and emotion processes differed between the aggressive-rejected and average group. Anger expression was related to defensive processes in the aggressive-rejected subgroup and to emotional awareness in the average group. A greater focus on the relationship between variables may be more productive in future research on emotions among rejected subgroups.

Emotion research among rejected subgroups has only just begun. The present research raises questions about whether there are reliable differences between rejected subgroups with regard to emotional experiences and processes. However, it also clarifies the need to address methodological issues and consider gender in future research efforts.

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APPENDICES

APPENDIX A

A-1 Table A: Comparisons in subgroup sample sizes

A-2 Bajgar, J., Ciarrochi, J., Lane, R., & Deane, F.P. (2005). Development of the Levels of Emotional Awareness Scale for Children (LEAS-C). *British Journal of Developmental Psychology, 23*, 569-583.

Please see print copy for Appendix A-2

Table A

Comparisons in subgroup sample sizes

	Rejected	AR [a]	WR [b]	AWR [c]	NAWR [d]
Present research	103	35 *(34%)*[1]	25 *(24%)*	10 *(10%)*	20 *(19%)*
Study 3		(13, 22) [2]	(19,6)	(3,7)	(10,10)
Boivin, Poulin & Vitaro (1994)	38	13 *(34%)*	8 *(21%)*	6 *(16%)*	11 *(29%)*
		(6, 7)	(5,3)	(2,4)	(7,4)
Hymel, Bowker & Woody (1993)	97	13 *(13%)*	14 *(14%)*	29 *(30%)*	
Zakriski & Coie (1996)	80	26 *(33%)*			43 * *(54%)*
		(14, 12)			(24,19)
Hecht, Inderbitzen & Bukowski (1998)		46	66	25	46
Parkhurst & Asher, 1992	55	22 *(40%)*	15 *(27%)*		14 *(25%)*
Rabiner & Gorden, 1992	31	12 *(39%)*			11 *(35%)*
Patterson, Kupersmidt & Griesler, 1990	66	19 *(29%)*			47* *(71%)*
		(13,6)			(24,23)

[a] Aggressive-rejected, [b] Withdrawn-rejected, [c] Aggressive-withdrawn-rejected, [d] Nonaggressive-nonwithdrawn-rejected, [e] Aggressive-nonrejected, [f] Withdrawn-nonrejected.

[1] Percentage of rejected group; * Nonaggressive rejected

[2] (Males, females) in sample

APPENDIX B **Study 1**

B-1 Student information sheet.

B-2 Student consent form

B-3 Parent information sheet

B-4 Parent consent form

B-5 Teacher information sheet

B-6 Data collection instructions

B-7 Measures

- (i) Children's Levels of Emotional Awareness Scale (LEAS-C)
  - (a) Example of LEAS-C scoring
- (ii) Parental Descriptions Scale (PDS)
- (iii) Vocabulary task
- (iv) Emotion Expression task
- (v) Emotion Comprehension task

WOLLONGONG UNIVERSITY

STUDENT INFORMATION SHEET

Research Project: ***Levels of emotional awareness among preadolescents***

Hello. My name is Jane Bajgar and I'm from the University of Wollongong. I'm here today to talk to you about a special project I am running - a project I would like all of you children to join in. It's lots of fun, it's not hard and it's going to give me important information about how children like yourselves think and feel.

There are 5 tasks involved altogether and most of these have something to do with something called emotional awareness. Emotional awareness is about knowing what you feel in different situations. It is also about what you think someone else is feeling in different situations. People don't always feel the same in the same situation and some people don't find it easy to know how they feel or how someone else feels. In two of these tasks I'm going to ask how people would feel in different situations. In another task I am going to show you photos of people's faces and ask you to guess what you think that person is feeling. I'm going to ask you to describe some important people in your lives and I'm going to ask you the meaning of some words.

This project will be lots of fun! It's not difficult and in most cases, there are no wrong or right answers. What is most important to me if what you think and feel.If you have any questions or problems filling the questions out, your can put up your hand and I will come to help you. If at any time you decide that you don't want to do anymore – you don't have to.

I do not want you to put your name on any of the papers. What is important to me is the information you give me through your answers. I will ask you to fill in information about your gender (male or female), your age and your grade.

THIS IS IMPORTANT
You will be taking an information sheet home to your parents today. Attached to this is a consent form. **If you want to take part in this project, this consent form must be signed by a parent and brought back to the school by the due date. You must also sign the consent form attached to this sheet.**

I hope to see you all again soon!

Jane Bajgar (researcher)
University of Wollongong,
Department of Psychology

B-2

WOLLONGONG UNIVERSITY

STUDENT CONSENT FORM

Research project: ***Levels of emotional awareness among preadolescents***

I have been given information about the research project called *Levels of emotional awareness among preadolescents.* I understand that I will be asked to think about the emotions I would feel and that other people would feel in different situations. I will also be asked the meaning of some words and I'll be asked to describe some people. I will also be asked to identify what people are feeling from photographs of their faces.

I understand that I can ask Mrs Bajgar any questions that I might have. I understand that I don't have to join in if I don't want to and that I can stop at any time.

I understand that I should not write my name on any of the questionnaires I complete. I will be asked to write down information about my age, grade and gender (male / female).

_____ ------/------/------

Signed Date

_____ _____

Student's name **(please print)** **Class**

WOLLONGONG UNIVERSITY

INFORMATION SHEET FOR PARENTS

Research Project*: Levels of emotional awareness among preadolescents*

Background and aims of the research

Interest in emotional intelligence has expanded rapidly over the past 10 years. Most of this research has involved adults while very little work has been done with children. The conclusions from adult research suggest that emotion skills are very important in our everyday functioning. One of these skills, emotional awareness, is the core focus of this research. The central question in this study is - Do children vary in their ability to identify their own and others' emotions and how does this ability relate to factors such as age, gender, vocabulary?

Focus questions

1. Can emotional awareness be reliably measured in children using the Levels of Emotional Awareness Scale – Children (LEAS-C)?
2. Is emotional awareness related to vocabulary?
3. Is emotional awareness related to cognitive maturity?
4. Is there a relationship between emotional awareness and gender?
5. Is there a relationship between emotional awareness and age?

Participation in the study

This research project will establish if emotional awareness can be reliably measured among preadolescents (yr 5 & 6 children). This process will involve trialing a children's version of the Levels of Emotional Awareness Scale (LEAS) – the questionnaire used to establish emotional awareness among adults. Children will complete a number of other measures which will demonstrate if the LEAS-C is measuring emotional awareness adequately.

Children will be asked questions about the emotions they are likely to experience in different situations. Children are also asked what they think other people might feel in certain situations. Children will be asked to identify the emotions people may be feeling from photographs of their faces. Children will be asked to complete a brief vocabulary task and they will be asked to describe important people in their lives.

These measures will be conducted in a group classroom setting. They are estimated to be completed within 1 - 1½ hours. This will be managed as two 45 minutes blocks with a short break in-between.
All information is to be given anonymously. Children will be directed not to write their names on any of the questionnaires. Children will be asked to provide information about their gender, age and grade.

Please note that consent for your child's participation is voluntary, that your child is free to refuse to participate and to withdraw from the research at any time. Your child's refusal to participate or withdrawal of consent with not affect in any way your family's relationship with the school or the University of Wollongong.

If you have any queries or concerns regarding this research, please contact Jane Bajgar. She will be most happy to talk with you. Should you have any concerns or complaints regarding the way the research is or has been conducted, you can contact the Complaints Officer, Human Research Ethics Committee, University of Wollongong on

About the researcher – Jane Bajgar

I am an experienced teacher. I have worked with children from infancy to adolescence, in a number of settings including preschools, standard classrooms and specialised schools for children with emotional / behavioural difficulties. I am currently a fulltime PhD research student. I have a keen interest in children's emotional development and how this may relate to the way children cope with challenges in their lives. I believe the results of this research will provide important information for those who work with young children and will assist in the development of programs which support and extend the emotional needs and skills of young children.

I appreciate the time you have taken to read this material. I really hope you will support this important project - Thank you.

Institution: University of Wollongong
Department of Psychology

WOLLONGONG UNIVERSITY

PARENTAL CONSENT FORM

Research Project: ***Levels of emotional awareness among preadolescents***

I have been given information about the research project titled *Levels of emotional awareness among preadolescents.* I understand this project is being conducted by Jane Bajgar as part of her PhD research and that her work will be supervised by Professor Frank Deane (Department of Psychology, University of Wollongong).

The purpose of this research and the tasks involved in the project have been explained to me. I understand an information sheet about the project and a consent form have been given to my child.

I understand that my child will be asked to complete a number of questionnaires which are about emotional awareness. The information my child provides will be anonymous. Information concerning my child's age, grade and gender will be requested.

I also understand that consent for my child's participation is voluntary and that my child is free to refuse to participate and / or to withdraw from the research at any time.

Should I have any queries about this research, I understand that I can contact the researcher Jane Bajgar (ph:), her supervisor Frank Deane (ph:)
or the Human Research Ethics Committee (ph:).

I consent to my child's involvement in the research project *Levels of emotional awareness among preadolescents* conducted by

_____ ------/------/--------
Signed (parent / guardian) Date

_____
Child's name (please print)

UNIVERSITY OF WOLLONGONG

TEACHER INFORMATION SHEET

Research project: ***Levels of emotional awareness among preadolescents***

The past decade has seen a dramatic increase in public and academic interest in the construct of emotional intelligence / emotional competence. Emotional awareness is argued to be a fundamentally important skill of emotional intelligence. Promising research has been undertaken in this area although the research to date has been conducted with adults only. This research project will examine if emotional awareness can be reliably measured among preadolescent children.

Emotional awareness has been successfully measured with adults using the Levels of Emotional Awareness Scale (LEAS; Lane, Quinlan, Schwartz, Walker, & Zeitlin,1990). This project will trial a modification (children's version) of this measure – the Levels of Emotional Awareness Scale for Children (LEAS-C). The other measures the children will complete will provide information concerning the reliability and validity of the LEAS-C.

It is estimated these questionnaires will take 1½ hours to complete. This could be managed as two 45 minute blocks with a short break in-between.

This research is part of a larger PhD project which seeks to examine the relationship between social competence and emotion skills. Particular focus is given to children who are rejected by their peers and at risk for the development of disorders such as depression and conduct disorder. Information which arises from the research will support intervention programs which work to reduce the negative outcomes of at-risk children.

Your support of this project would be gratefully appreciated. If you have any further questions / concerns, please feel free to contact me.

Jane Bajgar

Institution: University of Wollongong; Department of Psychology

STUDY 1

DATA COLLECTION INSTRUCTIONS

Good morning children. My name is Mrs Bajgar and I am from the University of Wollongong. I have come here today to do some important work with you – work which I think you are going to find interesting and fun. It is all about emotions. Can anyone tell me what they think I mean by emotions?

Emotions are feelings that you have and feelings that other people have, in different situations, at different times. Some people are good at knowing how they feel and how other people feel. Other people find this much more difficult. And I am here today to find out what children in year 5 and 6 know about emotions.

To find this out, I'm going to read some short stories out to you and I want you to write about how you would feel in that situation and how the other person might feel. I am going to ask you to describe important people in your life and we will have some fun guessing what emotions people are feeling from photos of their faces. I will also ask you to give me the meaning of some words.

OK. In a minute I will hand out some papers. Before I do, I would like to make a few points clear.

1. Try to answer every question. If you are not sure have a guess.
2. Don't worry about the right and wrong answers. In many cases there is no right answer. What is important is how you feel.
3. Don't worry about spelling. Spelling mistakes are not important.
4. If you have any questions, please put up your hand and I will come over and help you. I would rather you did not call out because that will distract the other children.

Are there any questions at this stage?

OK. I am going to come around and give everyone a set of papers. As soon as you are given a paper would you please fill out the information about your age, gender and grade (hold up questionnaire and show children).
Hand out questionnaires.

Before beginning, ask if all children have filled out the information on the front page.

LEVELS OF EMOTIONAL

AWARENESS SCALE FOR CHILDREN

(LEAS-C)

Name _____

Male Female

Age ____

Grade _____ School _____

Today's date ……../……../……..
Day Month Year

Directions

Over the page different situations are described. Each situation involves two people – yourself and another person. Please describe how you would feel in these situations. Please describe how you think the other person would feel. You must use the word "feel" in your answers. It doesn't matter if your answer is short or long. It doesn't matter if the words are spelt incorrectly. There is no right or wrong answer. Just remember to write about how you and the other person would feel.

1. You are running in an important race with a friend you have trained with for some time. As you get close to the finish line you twist your ankle, fall to the ground and can't continue. Your friend goes on to win the race. How would you feel? How would your friend feel?

2. You and your mom are coming home at night. As you turn onto your block you see fire trucks parked near your home. How would you feel? How would your mom feel?

3. You and your friend decide to save your pocket money and buy something special together. A few days later your friend tells you that he has changed his mind and has spent his money. How would you feel? How would your friend feel?

4. Someone who has said nasty things about you in the past comes up to you and says something really nice. How would you feel? How would the other person feel?

5. Your dad tells you that the family dog has been run over by a car and that the vet has to put the dog down. How would you feel? How would your dad feel?

6. You and a whole lot of other kids are running around at lunchtime. You and another kid crash into each other and you both fall down hard to the ground. How would you feel? How would the other kid feel?

7. The dentist tells you that you have some problems with your teeth that need to be fixed immediately. The dentist makes an appointment for you to come back the next day. How would you feel? How would the dentist feel?

8. Your teacher tells you that your work is not acceptable and must improve. How would you feel? How would your teacher feel?

9. You have become very good friends with the new kid in class. You hang around together a lot and feel you know each other really well. One day she invites you over to her house. You discover that her family is really rich and that your friend has everything you have ever wanted. She tells you that she kept this a secret because she thought kids would only be interested in her for her money. How would you feel? How would your friend feel?

10. The teams are being chosen and most of the players have been picked. There are two kids left over and you are one of them. But they only need one more player. How would you feel? How would the other kid feel?

11. Your friend is sharing some chips with you and some other kids. You notice he is giving more chips to the other kids than to you. How would you feel? How would your friend feel?

12. Your best friend comes over to see you after being away for several weeks. How would you feel? How would your friend feel?

Example of LEAS-C scoring

Scenario #7

The dentist tells you that you have some problems with your teeth that need to be fixed immediately. The dentist makes an appointment for you to come back the next day. How would you feel? How would the dentist feel?

Level	Ability to describe emotions	Example of response
0	No response / cognitions	I would feel like I should have brushed my teeth more often than I did. The dentist would feel like I didn't brush my teeth enough.
1	Bodily sensation	I would feel it would hurt. I don't know how the dentist would feel.
2	Global hedonic state	I would feel alright because we had it done before. He would feel good.
3.	Unidimensional emotion	We would both feel angry of course!
4	Differentiated emotions	I would feel scared and worried. The dentist would probably feel worried and happy to fix me and get money.
5	More complex & differentiated states	I would feel a bit worried for my teeth but excited because I don't know what will happen. The dentist would feel hopeful and sorry.

B-7 (ii)

ID No:

Parental Description

Age: _____ **Gender: Male / Female**
(please circle)

Grade: _____

On the next page you will be asked to describe your mother and your father. Please note that if this is not suitable to your situation, you may describe another appropriate adult in your life. For example, instead of your mother, you may describe your stepmother, your grandmother, your aunt or any other female adult who may care for you.

Instead of your father, you may describe your stepfather, your uncle, your grandfather or any other male adult who may care for you.

Please write down who you are describing.

Please describe your mother (or your stepmother, your aunt ….)

The person I am describing is my _____

Please describe your father (or your stepfather, your uncle ……)

The person I am describing is my _____

B-7 (iii)

ID No:

Vocabulary

Age: _____ **Gender: Male / Female (please circle)**

Grade: _____

I am going to read out a list of words to you. I want you to write down the meaning of each word after I read it out. There are 15 words altogether.

It is very important that you write down the meaning of each word next to the correct number. For example, I want you to write down the meaning of word number 1 next to number 1, the meaning of word number 2 next to the number 2, and so on.

Some of these words you will find easier and some of these words you will find harder. If you are not sure of the meaning of a word, have a guess. If you have no idea of the meaning of a word, draw a line in the word meaning box to show that you have skipped this one. For example:

Word number	Word meaning
10.	_____

Word number	***Word meaning***
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	

THE LIST OF WORDS READ TO PARTICIPANTS

1. Umbrella
2. bicycle
3. cow
4. alphabet
5. donkey
6. thief
7. leave
8. brave
9. island
10. ancient
11. nonsense
12. fable
13. transparent
14. absorb
15. precise

B-7 (iv)

ID No:

Emotion Expressions

Age: _____ **Gender: Male / Female (please circle)**

Grade: _____

I am going to show you some pictures of people's faces. I want you to write down what you think each person is feeling.

Over the page there are a series of numbers. These go with each of the pictures. I want you to write down what you think the person in picture 1 is feeling next to number 1, what the person in picture 2 is feeling next to number 2, and so on. If you are not sure what the person is feeling, have a guess. Write an answer for every picture. Do not leave any blank.

Don't worry about the spelling of the words. It does not matter if the words are spelt incorrectly.

Picture	How is this person feeling?
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

B-7 (v)

ID No:

Emotion Comprehension I

Age: _____ **Gender: Male / Female (please circle)**

Grade: _____

I'm going to read you some stories. Each story will have a title, and after each one I will ask a question about what happened in the story. Each story will be about something that happened to Matt or Lisa. Each question will be about how Matt or Lisa feels about what happened.

Matt or Lisa can feel any one of six different ways. Matt or Lisa can feel happy, sad, mad, scared, interested or ashamed.

Alright, now remember, you're going to hear stories about Matt or Lisa, and I want you to circle if Matt or Lisa would feel happy, sad, mad, scared, interested or ashamed.

Here's an example:

Happy	*Sad*	*Mad*	*Scared*	*Interested*	*Ashamed*	*The Birthday Party* *It was Matt's birthday, and he was very excited. He was having a party with all his friends and lots of food and games and presents. Does Matt feel ....?*

Happy	Sad	Mad	Scared	Interested	Ashamed	1. <u>The Ice Cream Cone</u> Lisa was at the park and her mother bought her a chocolate ice cream cone. Lisa took one lick and accidentally dropped her ice cream cone. Does Lisa feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	2. <u>The Card Game</u> Lisa's older sister and some of her friends were playing a card game at the table in the dining room. Lisa walked over to see what they were doing. Does Lisa feel …?
Happy	Sad	Mad	Scared	Interested	Ashamed	3. <u>The Tower of Blocks</u> Matt was building a big tower of blocks in the living room. His little brother came over and knocked it over and laughed. Does Matt feel ?
Happy	Sad	Mad	Scared	Interested	Ashamed	4. <u>The Snack</u> Lisa walked into the kitchen. Her mum said she has Lisa's favourite ice cream and biscuits for a snack. Does Lisa feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	5. <u>The Dirty Shirt</u> Matt was eating lunch in school and spilled food all down the front of his shirt. When finished, everyone looked at him and pointed. Does Matt feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	6. <u>The Big Mean Dog</u> Matt was playing on the footpath all by himself. All of a sudden, a big strange dog came running over, barking loud and showing all of his teeth. Does Matt feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	7. <u>The Fruit Bar</u> Matt brought his favourite fruit bar to school in his backpack. But another boy saw the fruit bar and took it from Matt and ate it. Does Matt feel ….?

Happy	Sad	Mad	Scared	Interested	Ashamed	8. The Lost Toy Lisa was playing in the park with a new toy which she really liked. When she went home, Lisa forgot the toy and lost it forever. Does Lisa feel…?
Happy	Sad	Mad	Scared	Interested	Ashamed	9. Choosing Sides Everyone in the class was going to play soccer and two boys were choosing sides. Matt was the only child left to pick and nobody wanted him on their side. Does Matt feel.?
Happy	Sad	Mad	Scared	Interested	Ashamed	10. The New Puppy Lisa always wanted a new puppy. One day her father brought one home and gave it to Lisa. Does Lisa feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	11. The Snake Lisa was walking in the bush. As Lisa was stepping over a log, she saw a big snake that was raising his head and showing his fangs. Does Lisa feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	12. The Secret In school, Matt heard some other children talking about something that happened to Matt's friend. Matt walked closer to listen. Does Matt feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	13. The Pants One day at school, Matt caught his pants in the swing and split them up the backside. Every time Matt stood up, all the children laughed. Does Matt feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	14. The Dress Lisa's class in school was going to give a show for the parents. Her mother bought Lisa a beautiful dress just for the show. Does Lisa feel….?

Happy	Sad	Mad	Scared	Interested	Ashamed	15. The New Toy Matt got a brand new toy for his birthday. His little brother took the toy without asking for it. Does Matt feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	16. The New TV Show There was a new show on TV which kids in school were talking about. Lisa decided to watch it for the first time one night. Does Lisa feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	17. The Lost Kitten Matt took care of his kitten, which he loved very much. One day the kitten disappeared and never came back. Does Matt feel ….?
Happy	Sad	Mad	Scared	Interested	Ashamed	18. The Shark Lisa was swimming at the beach with some friends. She saw what she thought was a shark fin circling around in the near distance. Does Lisa feel?

Emotion Comprehension II

Here are some more stories. In these stories, Matt or Lisa can feel one of six ways: Happy, Mad, Proud, Guilty, Ashamed or Looking down on someone.

Happy	Mad	Proud	Guilty	**Story 1: The Good Grade** Lisa studies hard for a test. She got a very good grade on the test and the teacher told her she had done a good job. Does Lisa feel ….?
Ashamed	Looking down on someone			
Happy	Mad	Proud	Guilty	**Story 2: Not Nice Clothes** A boy from Matt's class asked Matt to walk home with him. Matt wanted to say "No!" because he didn't think the kid's clothes were nice. Does Matt feel ….?
Ashamed	Looking down on someone			
Happy	Mad	Proud	Guilty	**Story 3: The Painting** Lisa walked hard on her painting in art class. When she got home, her mother hung it in the lounge room. Does Lisa feel?
Ashamed	Looking down on someone			
Happy	Mad	Proud	Guilty	**Story 4: The Maths Test** One day in school, Matt found out a kid in his class failed a maths test. Matt decided not to play with that kid because Matt thinks kid who aren't really smart are no good. Does Matt feel...?
Ashamed	Looking down on someone			
Happy	Mad	Proud	Guilty	**Story 5: The Money** Lisa took some money from her mother's room to buy some lollies. When her mother asked her when she got the lollies, Lisa said her friend gave it to her. Does Lisa feel ….?
Ashamed	Looking down on someone			
Happy	Mad	Proud	Guilty	**Story 6: The Spelling Test** Lisa was taking a spelling test and she forgot to study. She cheated off another child's paper and got a good mark for the test. Does Lisa feel ….?
Ashamed	Looking down on someone			

Happy	Mad	Proud	Guilty	**Story 7: The Race** Matt practiced everyday for the track race. At the race, Matt ran faster than he ever had before. Does Matt feel ….?
Ashamed	Looking down on someone			
Happy	Mad	Proud	Guilty	**Story 8: The Toy** Matt broke his little brother's favourite toy. When his brother asked who broke the toy, Matt blamed one of his friends. Does Matt feel ….?
Ashamed	Looking down on someone			
Happy	Mad	Proud	Guilty	**Story 9: Recess** One day, a girl in Lisa's class asked if Lisa could play with her at recess. Lisa said "No!" because she didn't think the girl lived in a nice area. Does Lisa feel ….?
Ashamed	Looking down on someone			

APPENDIX C **Study 2**

Table B

Examples of methodological approach in sociometric studies

Studies	Sociometric questions [a]				Sociometric method [b]		
	F	DP	A	TS	LM/LL	R	RO
Asher, Hymel, & Renshaw (1984)	✓			✓	✓	✓	
Bell-Dolan, Foster, & Christopher (1995)				✓	✓		
Boivin, Poulin, & Vitaro (1994)				✓	✓		
Cole & Carpentieri (1990)					✓		
Crick & Ladd (1993)				✓	✓		
Hecht, Inderbitzen, & Bukowski (1998)		✓			✓		
Hymel, Bowker, & Woody (1993)			✓			✓	
Monfries & Kafer (1987)				✓	✓		
Parkhurst & Asher (1992)		✓			✓		
Patterson, Kupersmidt, & Griesler (1990)		✓			✓	✓	
Rabiner & Gordon (1992)		✓			✓		
Vitaro, Tremblay, Gagnon, & Boivin (1992)				✓	✓	✓	
Zakriski & Coie (1996)		✓			✓		

[a] F – Friendship; DP - Direct Preference; A – Acquaintance; TS - Task Specific.
[b] LM/LL L – Like most / like least; R – Rating; RO – Rank order.

Table C

Variability in reporting methodological issues in sociometric research

Studies	Methodological issues
Asher, Hymel, & Renshaw (1984)	No reporting of participation or nonparticipation percentage.
Bell-Dolan, Foster, & Christopher (1995)	50% of available students participated. No comment on how these were recruited
Boivin, Thomassin, & Alain (1989)	No reporting of consent procedures. Distinguish between percentage of students participating and potential pool.
Cole & Carpentieri (1990)	Procedure for gathering consent not explicit. Passive consent implied: data gathered as part of larger district project and all 4th grade students participated unless students were absent, dropped from study due to invalid responding, or chose not to participate.
Crick & Ladd (1993)	Do not report the percentage of students participating from potential pool.
Hecht, Inderbitzen, & Bukowski (1998)	Passive consent protocols used. Passive consent procedures explained (ie description of study mailed to parent, parents asked to call if they didn't want their child to participate). Decision to use passive consent procedures based on arguments explained elsewhere (see Bishop & Inderbitzen, 1995).
Hymel, Bowker, & Woody (1993)	No reporting of how consent obtained. Comment only that all children had received parental permission to participate. No comment on participation rates / potential participating pool.
Monfries & Kafer (1987)	No mention of potential pool, consent procedure. No mention of original n size and report only n sizes for groups (6 grps, 15 in each).
Parkhurst & Asher (1992)	Passive consent implied. To obtain consent, letter sent home by principal and parent s given opportunity to request more info or decline participation.
Rabiner & Gordon (1992)	Report participation percentage - from 886 students, 65 % of possible pool participated. Comment that less that desirable but sufficient to obtain status classifications (cite Crick & Ladd, 89)

OVERVIEW OF RESEARCH PROJECT: STUDENTS AND TEACHERS [1]

Good morning teachers. Good morning children. My name is Jane Bajgar and I'm from the University of Wollongong. I've come here today to share some important information with you and to invite you all to join in a special project I will be running in your school soon. It's not hard at all, there are no wrong and right answers and you will be giving me lots of very important information about how children such as yourselves think and feel.

To help me explain my project, I'd like to focus on three important words today - (emotion, research, confidentiality)

The first of these words is emotion. Put up your hand if you can tell me what I mean by the word emotion.

That's right. Emotions are feelings. And emotions are pretty interesting things. For instance, in exactly the same situation, people can feel the same as each other, or people can have really different feelings from one another. Some people have the same sorts of feelings on most days and other people find their feelings change a lot and they have different feelings depending on who they are with or where they are. Some people notice their feelings quite a lot and other people hardly notice their feelings at all. In other words, emotions will mean different things to different people.

This brings me to my second word. Research. Can anyone tell me what I mean by the word research.

That's right. Research is about finding information. Some important research has already been done on emotions and they have found out some important information. That's the sort of information about emotions I have just shared with you. But what is really important here is that this most of this research has been done by asking adults how they think and feel. I think it's time to ask kids and that's what my project is all about. By joining in you will giving very important information about how kids like yourselves - around 10, 11 and 12 years of age - think and feel. The more kids that join in, the more information I will have and the more information I have, the more I will be able to say about what you think and feel. One of your teachers said to me the other day "Jane, it's like being on a team. The more players you have, the better the game." I thought that was an excellent example and it's very true. You can't have a good game with only a few players. The more players you have, the better will be the team spirit

[1] The information presented to students and teachers in Study 1 and 2 was identical with the exception of consent procedures on page 2 (italicized)

and the better will be the game. This project will be a great success if you all join in!

This brings me to my last important word and this one is a little difficult. Can anyone tell me what I mean by the word confidential? This means two things – it means in this project both you and I have important responsibilities. My responsibility is that I promise the information you give me will be seen only be me and no one else. But just as important, it is your responsibility to make sure that the information you give me, the information you write down, remains on paper only and is not discussed among yourselves later on. Now these two things are very important to understand. Does anyone have any questions about this?

OK. That's great. Now very quickly about the project. It's not hard at all and like I said in the beginning, you can't go wrong because there are no wrong and right answers. What is important is what *you* think and feel. I'll be asking you some questions about the kids you hang around with and don't hang around with at school and about your feelings and the feelings of others in different situations. Those that join in the project will be given some sheets of paper with questions on them. The papers will be given to all of you at the same time and you'll write your answers at same time. As we go through the papers I will read through each question and wait until you have all finished before moving onto the one. Are there any questions?

Study 2 only
Excellent! The last important thing I need to tell you about is the information and consent forms. Today you will be given some sheets to take home. One is for your parents (hold up for kids to see). This is an information sheet and a consent form. Your parents must sign the consent form and please – return it to school as soon as possible. You will also be given another sheet and this one is for each of you. There is an information sheet which tells you about the project. Over the page these is a consent form. You MUST sign this consent form and hand it in to your teacher. In other words to join in this project you must return two consent forms to the school – one from yourselves and one from your parents.

Study 3 only
Excellent! I have some information sheets to give you today. One of these is for your parents to read. And this one is for you to read. The information on these sheets is the same kind of information as what I have been telling you about this afternoon. Make sure you give this information sheet to your parents. If you or your parents do not want you to joi in this project, your parents will need to sign the form here.

That's about all from me. Are there any questions?

Thank you children for your 100% attention. I'm really looking forward to working with you all soon. And thank you also to the teachers for allowing me this time to talk with your children!

UNIVERSITY OF WOLLONGONG

STUDENT INFORMATION SHEET

Research Project: *The role of emotional awareness in children's social adjustment*

Hello. My name is Jane Bajgar and I'm from the University of Wollongong. I'm here today to tell you about a project I will be running in your school soon. It's all about how you feel in different situations and how you think other people might feel.

The questions you will be asked are not hard at all – in fact, there are no wrong or right answers! What is important is only what **YOU** think and feel. I will ask you some questions about your classmates and about your feelings and the feelings of other people, in different situations. Some of these situations happen at school and some happen outside of school.

If you have any questions or problems filling the questions out, just put up your hand and I will help you straight away. If at any time you decide that you don't want to do anymore – you don't have to. The information you give will be seen only by me. If I have reason to be seriously concerned for your safety after looking at your responses, I must let someone else know.

Your answers will provide very important information about how kids like yourselves think and feel. This information can be used to develop programs for the classroom and playground.

Attached to your school newsletter is an information sheet for your parents about this project. Please don't forget to give this to your parents!

Thanks for listening so well. I'm really looking forward to seeing you all again soon!

Jane Bajgar (researcher)

Department of Psychology
University of Wollongong

C-5

WOLLONGONG UNIVERSITY

STUDENT CONSENT FORM

Research project: *The role of emotional competence in children's social adjustment*

I have been given information about the research project called *The role of emotional competence in children's social adjustment.* I understand that I will be asked about my classmates and about how I feel sometimes and about how I think other people feel sometimes.

I understand that I can ask Jane Bajgar any questions that I might have. I understand that I don't have to join in this research if I don't want to and that I can stop at any time.

I understand that the information I give will be seen by Jane Bajgar only. I also understand that if she has reason to be seriously concerned for my safety after looking at my responses, she must inform someone else.

FORMS MUST BE RETURNED BY

_____ ------/------/--------

Signed Date

_____ _____

Student's name **(please print)** Class

WOLLONGONG UNIVERSITY

INFORMATION SHEET FOR PARENTS

Research Project*: The role of emotional awareness in children's social adjustment.*

Background and aims of the research

The ability to identify our own emotions and the emotions of others, to think about these emotions and to control them, has important immediate and long term effects on our lives. Research in this area of emotional competence or emotional intelligence has grown steadily over the past decade. Most of this research however has been conducted with adults and relatively little is known of the emotional functioning of children. This research would like to examine the emotional functioning of pre-adolescent children (yrs 5 & 6) and how this relates to children's social functioning. The information which this research provides will support programs that aim to strengthen and improve the emotional skills of all children.

Participation in the study

Children will complete a number of questionnaires. It is estimated that these will take around 1½ hours to complete. This will be managed as two 45 minute blocks with a break in-between.

The central focus of these questionnaires is children's experience and awareness of emotions. Children will be asked about their experiences of emotions such as joy, sadness and anger. They will also be asked about their emotions in different situations and about how they think other people might feel in different situations. Children will also be asked about their classmates and about their social behaviour.

While your child will be required to write their name on the measures, once the data has been collected each child will be allocated a code and all information your child provides will be processed under this code only. No reference to individual names will be made at all. Information concerning your child's gender and age will be recorded.

If you have any queries or concerns regarding this research, please contact me. I will be only too happy to discuss the project with you further. Should you have any concerns or complaints regarding the way the research is or has been conducted, you can contact the Complaints Officer, Human Research Ethics Committee, University of Wollongong on 42214457.

Please also be aware that consent for your child's participation is voluntary, that your child is free to refuse to participate and to withdraw from the research at any time. Your child's refusal to participate or withdrawal of consent with not affect in any way your family's relationship with the school or the University of Wollongong.

About the researcher

I am an experienced teacher. I have worked with children from infancy to adolescence, in a number of settings including preschools, standard classrooms and specialised schools for children with emotional / behavioural difficulties. I am also a fulltime PhD research student. I have a keen interest in children's emotional development and how this relates to how children cope with challenges in their lives. I believe the results of this research will provide important information for those who work with young children and will assist in the development of programs which support and extend the emotional needs and skills of young children.Thank you for your time, consideration and I hope, your support.
Jane Bajgar

Institution: University of Wollongong, Department of Psychology.

WOLLONGONG UNIVERSITY

PARENTAL CONSENT FORM

Research Project: ***The role of emotional competence in children's social adjustment***

I have been given information about the research project titled *The role of emotional competence in children's social adjustment*. I understand this project is being conducted by Jane Bajgar as part of her PhD research and that her work will be supervised by Professor Frank Deane (Department of Psychology, University of Wollongong).

I understand this project has been explained to my child at school and an information sheet has also been handed out. I understand that my child will complete a number of questionnaires which will be asking about children's relationships with their peers, about the emotions and thoughts they experience in their lives and about their awareness of emotions in themselves and in other people. Estimated time to complete the questionnaires is 1 ½ hours (two blocks of 45 mins with a short break in-between).

I understand that consent for my child's participation is voluntary and that my child is free to refuse to participate and / or to withdraw from the research at any time. My child's refusal to participate or their withdrawal of consent will not affect in any way my family's relationship with the school or with the University of Wollongong.

I understand that the data collected from my child's participation will be coded and that personal identification of my child will not occur. I also understand that serious concerns for the well-being of any child which arise from questionnaire responses will need to be passed on to the principal.

I have been provided with the opportunity to ask Jane Bajgar any questions I may have about the research and my child's participation in it. I understand that if I have any enquiries about the research, I may contact Jane Bajgar on 42 214155 or Frank Deane on 42214523. If I have any concerns or complaints regarding the way the research is or has been conducted, I can contact the Complaints Officer, Human Research Ethics Committee, University of Wollongong on 42214457.

FORMS MUST BE RETURNED BY .....

I consent to my child's involvement in the research project "The role of emotional competence in children's social adjustment" conducted by Jane Bajgar.

_____ ------/------/--------

Signed (parent / guardian) Date

_____

Child's name (please print)

UNIVERSITY OF WOLLONGONG

TEACHER INFORMATION SHEET

Research project: ***The role of emotional awareness in children's social adjustment***

The past decade has seen a dramatic increase in public and academic interest in the construct of emotional competence or emotional intelligence. Emotional awareness is argued to be a fundamentally important skill of emotional intelligence. Promising research has been undertaken in this area although the research to date has been conducted with adults only. This research will extend an earlier project which examined if emotional awareness could be reliably measured among preadolescents, by focussing on the relationship between emotion skills such as emotional awareness and social competence.

Student participation

The relationship between social competence and the tendency to report high levels of depression, anxiety and anger will be examined. Particular focus will be given to subgroups of children who are rejected by their peers (aggressive rejected, withdrawn rejected and aggressive withdrawn rejected children). The emotion skills of children will be examined in light of the relationship between social competence and these disorders. Aspects of emotion skill which will be considered include emotional awareness, emotional range, repression of emotions and sensitisation of emotions.

It is estimated these questionnaires will take 2 hours to complete. This could be managed as two 55 minute blocks with a brief break in-between.

Teacher participation

Teachers will be asked to complete a measure of social behaviour for each student in their class, irrespective of whether or not the student participates in the research. Three sub-scales only from the larger scale will be used (please see attached).

Why your involvement is needed

There is some evidence to suggest that subgroups of rejected children are at risk for differing outcomes ie withdrawn and aggressive withdrawn children are more likely to develop depression and aggressive children to develop anger problems. It is possible that one of the reasons for these differences is children's emotion skills. To examine these relationships, it is vital that the social behaviour of children is accurately identified from the outset.

While children are generally able to identify aggressive behaviour, their ability to identify less salient behaviour such as withdrawal and anxiety, is less stable at this age. Therefore while children will still be asked to nominate peers who are anxious,

withdrawn or aggressive, it is very important that a more reliable source of information is also provided. And that is your contribution.

It is asked that assessments be completed on all children to examine if significant differences between the students who do participate and the students who do not participate, exist.

Benefits of the research

Research findings will contribute to the pool of knowledge concerning the needs of vulnerable children in school communities. Most research in this area to date has focused on the behavioural and cognitive needs of these children, while very little is known of their emotion skills. This research will provide vital comparison between the emotion skills of normative children (that is, children who are not at-risk for poor outcomes in their later development) and those children who are at-risk. This information will supplement and extend interventions already in place in schools which seek to improve the short term and long term outcomes of vulnerable children.

Time is a precious and valuable commodity for teachers. I have been conscious of this in my research proposal and have tried to keep your contribution to a minimum. Your support of this project is most sincerely appreciated.

If you have any further questions / concerns, please feel free to contact me.

Jane Bajgar

Institution: University of Wollongong
Department of Psychology

BRIEF REPORT

Permission to participate and sampling bias in classroom-based research

Jane Bajgar,
Frank P. Deane
University of Wollongong

Abstract

A few prior studies have highlighted the potential for sampling bias in classroom-based research. The present study examined differences between students who provided permission to participate in a larger sociometric study (n=36) and students who did not provide permission (n = 78). Data was gathered from both teachers and peers. Peer nominations of like, dislike, aggression and withdrawal and teacher ratings of aggression and withdrawal were assessed. Extending previous research, focus was given to subtypes of withdrawn behaviour in students, specifically, anxious/fearful withdrawal and asocial withdrawal. Nonparticipants were seen by their peers as significantly more aggressive and were significantly more disliked. Nonparticipants were rated by their teachers as more asocially withdrawn while participants were seen as more anxious / fearful. Findings highlight the potential sampling bias in school based research, the difficulties confronting researchers in attracting participation of vulnerable groups in school settings and the utility of distinguishing subtypes of withdrawn behaviour in risk-related research.

Permission to participate and sampling bias
in classroom-based research.

Concerns of biased sampling in school-based research have been voiced sporadically for the past twenty years (e.g., Beck, Collins, Overholser, & Terry, 1984; Frame & Strauss, 1987; Noll, Zeller, Vannatta, Bukowski, & Davies, 1997; Weinberger, Tublin, Ford, & Feldman, 1990). The direction and nature of this bias has led to view that those students with vulnerability to poor mental health may be underrepresented in classroom research (Weinberger et al., 1990).

Prior studies suggest that differences can be identified between students who participate in research and students who do not participate. For instance, Frame and Strauss (1987) found that nonparticipating students were more aggressive and more withdrawn and were less popular and less physically attractive when compared to their research-participating peers. Nonparticipants have also been found to be higher in distress (e. depression, anxiety, low self-esteem) and lower in restraint (Weinberger et al., 1990). Other variables which appear to be associated with nonconsent include lower academic performance (Frame & Strauss, 1987), greater difficulties with peers (Beck et al., 1984) and less sociability (Noll et al., 1997).

School-based research is particularly susceptible to sampling bias. Research participation is commonly reliant on the active consent of third parties i.e., the parents of students. The procedures involved in active consent are also relatively complex and are frequently dependent on the engagement of multiple parties e.g., research bodies, school personnel, students and their parents (Severson & Ary, 1983).

Active consent procedures aim to protect the interests of individuals unable to provide informed and independent consent. Yet the requirements of active consent may result in situations where the probability of participation is not equal for all children. There is some evidence to suggest that individuals who support research, either through direct participation or through providing consent for the participation of others, may differ from individuals who do not support research. For instance, Rosnow and Rosenthal (1976) found that volunteers were better educated, more sociable and of higher social class when compared to nonvolunteers. Parental and family functioning may also be related to child problems (Hetherington & Martin, 1986). The more reliant the research process becomes upon attributes such as family organization and stability, or commitment and shared ideals of the researchers, the greater the potential risk of marginalising some individuals in the research process (Boyle, Offord, Racine, & Catlin, 1991).

Differences between participating and nonparticipating students have been primarily identified by peers. In one of the few studies that have used both teachers and peers, teachers did not always concur with peer-identified differences between participants and nonparticipants (Frame & Strauss, 1987). Peer and teacher reports provide information from different perspectives. Feedback from peers has greater face validity. On the other hand, teachers may be better able to distinguish between different aspects of student behaviour, particularly withdrawn behaviour (Coie & Dodge, 1983). Further work examining the concordance between teacher and peer identified differences in participating and nonparticipating students is needed.

Prior risk research has tended to focus on withdrawal as a unitary construct. Recent research has suggested that examination of subtypes of withdrawn behaviour may be beneficial in risk-related research and that some subtypes of withdrawn behavriour may be more strongly associated with poor mental health outcome than others (Harrist, Zaia, Bates, Dodge, & Pettit, 1997). Harrist and colleagues (1997) identified four subtypes of withdrawn behaviour: unsociable, passive-anxious, active-isolate and sad-depressed. These subtypes were found to differ in relation to their acceptance from peers and their social information- processing patterns. The unsociable group appeared to be less at risk for poor outcome than the other subtypes. The present study distinguishes between asocial (unsociable) and anxious / fearful withdrawal.

The present study was developed from a larger sociometric project involving five local elementary schools. Active consent procedures were used in this project. The average participation rate across the five schools was 32% and this was inadequate for sociometric purposes. Preliminary exploration of the data suggested that children who did not participated in the project were less liked, more disliked and behaviourally symptomatic compared to their participating peers. Approval was sought and granted from the university ethics committee and school administration to obtain teacher ratings on all children from all schools, to enable greater exploration of this apparent difference. All five schools were supportive of this amendment. However, only one school returned completed teacher ratings on all students. Thus, the present study explores differences between participating and nonparticipating students within one school.

Differences between participating and nonparticipating students were examined using peer and teacher informants. Peer reports focused on nominations of like and dislike, and reports of aggressive and withdrawn behaviour. Teacher reports of aggressive and withdrawn behaviour were also collected. Subtypes of withdrawn behaviour – asocial (passive) withdrawal and anxious / fearful withdrawal were identified by both peers and teachers.

On the basis of prior research, it was expected that nonparticipating students would be more aggressive and more withdrawn than participating students. Nonparticipants were also expected to receive higher dislike nominations and lower like nominations compared to their participating peers. Subtypes of withdrawn behaviour have not been examined in this research context previously and it was not clear if distinctions between participants and nonparticipants would be identified on this dimension.

Method

Participants

Subjects were grade 5 and 6 students (N=109), recruited from a local primary school in a region comprised of heavy industrial and university based employment. The majority of students were of white middle class background. All 109 students were invited to participate in a study described as “about emotions and behaviour”. Of the total sample from this school, 36 students (16 males, age range 10 – 12 years, M_{age} = 10.6; 20 females, age range 10 – 12 years, M_{age} = 10.4) consented to participate. The remaining 73 students (44 males, age range 10 – 12 years, M_{age} = 11.2; 29 females, age range 10 – 12 years, M_{age} = 11.4) did not consent to participate.

Procedure

After the initial phone contact with the school principal, a ½ hour period was set aside to present the research background and goals to students and their teachers. Questions were encouraged throughout the information session. Information sheets and consent forms for students and their parents were handed during this session. Students were asked to take the information and consent forms home to their parents and to discuss the research project with their parents. Approximately 2 weeks elapsed between the handing out of consent forms and data collection. Students were encouraged to return consent forms as soon as possible (i.e., within 3-5 school days).

All measures were administered in a group setting during regular class time. All participating students had returned parental and student consent forms. Students who had not returned consent forms were not present in the group setting. Teachers completed the behaviour ratings for participating students during the data collection period. Behaviour ratings for nonparticipants were completed several weeks following data collection. To protect the anonymity of participating students, protocols were coded.

Measures

Teacher ratings

Teacher ratings of children's aggressive and withdrawn behaviour were obtained using the Child Behavior Scale (CBS; Ladd & Profilet, 1996). Three subscales of this measure were use. The Aggressive with Peers subscale was comprised of 7 items assessing both physical (e.g., *fights with other children*) and verbal (e.g., *taunts and teases other children*) aggression. Withdrawn behaviour was identified using both the Anxious / Fearful and Asocial subscales. The Asocial with Peers subscale was comprised of 6 items and assessed passive-withdrawn behaviour (e.g., *prefers to play alone*). The Anxious / Fearful subscale was comprised of 4 items assessing anxious-withdrawn behaviour (e.g., *tends to be fearful or afraid of new things or new situations*). All items were rated on a 3 point scale; 1 = *doesn't apply*, 2 = *applies sometimes* and 3 = *certainly applies*. The Asocial and Anxious / Fearful subscales were summed and the mean of this sum total was taken as the total withdrawal score.

The internal consistency coefficients for the subscales are moderate to high: Aggressive with Peers subscale α =.89 - .92, Asocial with Peers subscale α = .87 - .89 and Anxious / Fearful subscale α = .77 - . 79 (Ladd & Profilet, 1996). In the present study, the internal reliability (Cronbach's alpha) coefficients were good; Aggressive with Peers subscale α = .87, Asocial with Peers subscale α = .92 and Anxious / Fearful subscale α = .70. The internal consistency for the composite Withdrawn scale was α = .85.

Peer nominations

Peer nominations were obtained following the procedure outlined by Coie and colleagues (Coie, Dodge, & Coppotelli, 1983). Students were presented with class lists of within-gender classmates. On the first page, students were asked to circle the names of three classmates they liked the most and to put a cross next to three classmates they liked the least. On the following six pages, using an unlimited nomination procedure with identical class lists, students were requested to circle the names of any students that fitted the behavioural descriptors: *afraid*, *alone*, *fights*, *shy*, *tease*, *worry*. Aggression was assessed by 2 items: *start fights and arguments*; *pick on*

others and teases others too much. Withdrawn behaviour was assessed by 4 items: *afraid of new things or new situations; get really worried about lots of things; who are very shy; who would rather play alone than with others*. The former two descriptors assessed anxious / fearful withdrawal while the latter two assessed asocial withdrawal. Aggression items and withdrawn items were summed and averaged to form total aggression and total withdrawn scores.

Results

Initial exploratory work revealed that both teacher and peer rating were skewed. Analysis was therefore conducted using nonparametric testing: Spearman's Rho when examining the relationship between peer nominations and teacher ratings and Mann Whitney U-test when examining between group differences on the dependent variables.

Relations between teacher ratings and peer nominations

Peer nominations of aggression were significantly correlated with teacher ratings of aggression and peer nominations of withdrawal were significantly correlated with teacher ratings of withdrawal (see Table 1). Peer nominations of asocial withdrawal were significantly correlated with teacher ratings of anxious / fearful withdrawal. Peer nominations of anxious / fearful withdrawal were significantly related to both teacher ratings of asocial withdrawal and anxious / fearful withdrawal. Peer nominations of like were significantly negatively correlated with peer nominations of dislike and aggression and teacher ratings of aggression. Peer ratings of dislike were significantly correlated with peer nominations of aggression for both peers and teacher ratings of aggression and teacher ratings of asocial withdrawal.

Group differences on the Dependent Variables

Gender differences in the dependent variables were explored with the Mann-Whitney U test. Significant gender differences were not found. Further testing with Participant Status as the grouping variable was then undertaken on the dependent variables: peer nominations of like and dislike, aggression and withdrawal, and teacher ratings of aggression and withdrawal. The results revealed that peers discriminated between participants and nonparticipants on three of the four dimensions. Participants received significantly higher nominations of liking and nonparticipants received significantly higher nominations of dislike and aggression (see Table 2 for details). Group differences in teacher ratings of aggressive and withdrawn behaviour were not significant.

Additional group testing was run on the withdrawal subscales for peers and teachers. Peers did not discriminate between the groups on either anxious / fearful withdrawal or asocial withdrawal. Teachers rated participants as significantly higher in anxious / fearful withdrawal and nonparticipants as significantly higher in asocial withdrawal (see Table 2).

Discussion

These results found in this study suggest that students who participate in research differ from students who do not participate. The perceived nature of these differences varied between peers and teachers. Nonparticipants were viewed by their peers as significantly more aggressive and were significantly more disliked. Teachers viewed nonparticipants as significantly more asocial.

Several plausible explanations for the discrepancy between teacher and peer perceptions are immediately apparent. Children are frequently exposed to different forms of aggressive behaviour in their everyday social interactions at school and are therefore more likely to report accurate levels of aggression (Asher, Rose, & Gabriel, 2001). Overall, teachers have significantly less opportunity to observe aggressive behaviour in students Moreover, many forms of aggression may be moderated or hidden by students due to teacher supervision. In addition, while aggression is a highly salient behaviour among children, withdrawn behaviour is seldom reliably identified in peers prior to adolescence (Younger, Schwartzman & Ledingham, 1985). Thus teachers are more likely to detect social withdrawal than students and appear more able to distinguish between different types of this behaviour. These findings highlight the importance of multiple informants when examining social behaviour in classroom-based research.

The significant relationship between peer dislike and teacher ratings of asocial withdrawal is interesting to note. Links between some subtypes of withdrawn behaviour, in particular active-isolates and sad / depressed groups, and peer rejection have emerged in prior research (Harrist et al., 1997). Asocial withdrawal, as conceptualised by Ladd and Profilet (1996) appears to more closely resemble the unsociable withdrawn subtype identified by Harrist and colleagues (1997). Negative peer sentiment does not appear to be associated with this withdrawn profile. The results in this study may reflect a less clear distinction in the descriptors for asocial withdrawal between unsociable withdrawal and active isolates than that made by Harrist and colleagues. It remains for future research to explore more fully the links between subtypes of withdrawn behaviour, peer sentiment and nonconsent in classroom research.

Significantly higher ratings of anxious / fearful withdrawal among participants are somewhat difficult to explain and may point to characteristics relating only to this sample. Both male and female participants were rated more anxious / fearful than nonparticipants. This result does suggest that teachers perceived the presence of this behaviour in the group as a whole.

The limitations of this study must also be acknowledged. Research findings were based on a one-school sample. Wider sampling may well reveal a differing pattern of relationships to those found in this study. However, the fact that fundamental differences between participants and nonparticipants have been found in prior studies does suggest the core findings of this study are not the result of a one-sample bias. Given that teachers rated nonparticipating students independently of participating students, the possibility that knowledge of participant status may have influenced teacher ratings cannot be ruled out. Similarly the students nominating levels of

behaviour in their same gender peers were themselves participants. The influence of attributing negative characteristics to those not present should be acknowledged.

Notwithstanding these limitations, the results from this study are consistent with previous claims that students who do not participate in classroom research differ from their participating peers. More troubling is that these are often the very students who are the target of research. While differences between participating and nonparticipating students have been investigated in previous studies, this is the first study to find links between subtypes of withdrawn behaviour and nonconsent. These findings support the view that withdrawal should not be conceptualised as a unitary construct (Harrist, et al, 1997).

Table 1: Spearman Rho correlations between Peer Nominations and Teacher Ratings

	Peer Nominations						Teacher Ratings			
	Like	Dislike	Aggression	Withdrawal	Asocial [a]	Anx F [b]	Aggress [c]	Withdrawal	Asocial	Anx F
Peer										
Like										
Dislike	-.41**									
Aggression	-.34**	.40**								
Withdrawal	-.02	.07	-.10							
Asocial	-.07	.13	-.03	.65**						
Anx F	-.01	.01	-.08	.75**	.25**					
Teacher										
Aggression	-.22*	.20*	.22*	-.07	-.01	-.10				
Withdrawal	-.03	.10	-.07	.27**	.19	.32**	.22*			
Asocial	-.15	.27*	.14	.18	.14	.20*	.19	.75**		
Anx F	-.08	-.07	-.20*	.28**	.22*	.27**	.21*	.72**	.16	

[a] Asocial Withdrawal, [b] Anxious Fearful Withdrawal, [c] Aggression

Table 2
Means and standard deviations for the dependent variables for participating and nonparticipating groups

	Participants [a]		Nonparticipants [b]		
Dependent Variables	Mean	SD	Mean	SD	Z
Peers [c]					
Like	.43	1.04	-.21	.86	-3.12*
Dislike	-.34	.79	.17	1.01	-2.97*
Aggression	-.46	.58	.23	1.04	-3.59**
Withdrawal	.08	1.09	-.04	.91	-.32
Anxious/Fearful	.11	1.77	-.05	1.65	-.003
Asocial	.07	1.64	-.04	1.44	-.41
Teachers					
Aggression	1.22	.29	1.31	.40	-.72
Withdrawal	1.22	.26	1.19	.31	-1.13
Anxious/Fearful	1.38	.36	1.12	.35	-3.29*
Asocial	1.11	.27	1.29	.35	-4.73**

[a] n = 36, [b] n = 73; [c] Peer nominations for Like, Dislike, Aggression and Withdrawal are reported as standardised scores
* $p < .05$, ** $p < .001$, 2-tailed

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APPENDIX D **STUDY 3**

D-1 Parental information and passive consent form

D-2 Measures

(i) Child Depression Inventory (CDI)
(ii) Revised Child Manifest Anxiety Scale (RCMAS)
(iii) Pediatric Anger Expression Scale (PAES)
(iv) Marlowe Crowne Social Desirability Scale (MCSDS)
(v) Children's Rejection Sensitivity Questionnaire (CRSQ)
(vi) Differential Emotions Scale (DES)

D-3 Debrief

D-4 Sociometric and behavioural nominations

D-5 Posthoc exploration of gender differences in the aggressive-rejected, withdrawn-rejected and average groups.

WOLLONGONG UNIVERSITY

INFORMATION SHEET FOR PARENTS

Research Project: ***The role of emotional awareness in children's social adjustment.***

Background and aims of the research

The ability to identify our own emotions and the emotions of others, to think about these emotions and to control them, has important immediate and long term effects on our lives. Research in this area of emotional competence or emotional intelligence has grown steadily over the past decade. However most of this research has been conducted with adults and less is known about the emotional competence of children. This research would like to examine the emotional functioning of pre-adolescent children (grades 5 & 6) and how this relates to children's social functioning. The information which this research provides will support programs that aim to strengthen and improve the emotional skills of all children.

Participation in the study

Children will complete a number of questionnaires. It is estimated that these will take around 2 hours to complete. This will be managed as two 55 minute blocks with a break in-between.

The central focus of these questionnaires is children's experience and awareness of emotions. Children will be asked about their experiences of emotions such as joy, sadness and anger. They will also be asked about their emotions in different situations and about how they think other people might feel in different situations. Children will also be asked about their classmates and about their social behaviour.

Children will be asked to write their name on the measures. However once the data has been collected each child will be allocated a code and all information your child provides will be processed under this code only. The information your child provides will be examined in terms of your child's gender and age only. No reference to an individual's name will be made at all. Serious concerns for the well-being of any child arising from questionnaire responses will need to be passed on to the school principal.

I will visit the school in the near future to explain the project to the teachers and students involved. An information sheet providing a summary of this talk will be handed out and questions from all will be encouraged and addressed.

Background information about the researcher

I am an experienced teacher and have worked with children from infancy to adolescence, in settings such as preschools, standard classrooms and specialised schools for children with emotional / behavioural difficulties. I am also a fulltime PhD research student. I have a keen interest in children's emotional development and how this relates to how children cope with challenges in their lives. I believe the results of this research will provide important information for those who work with young children and will assist in the development of programs which support and extend the emotional needs and skills of young children.

If you have any queries or concerns regarding this research, please contact me. I will be only too happy to discuss the project with you further. Should you have any concerns or a complaint regarding the way the research is or has been conducted, you can contact the Complaints Officer, Human Research Ethics Committee, University of Wollongong on 42214457. Please be aware that your child's participation is voluntary, that your child is free to refuse to participate and to withdraw from the research at any time. Your child's refusal to participate will not affect in any way your family's relationship with the school or the University of Wollongong.

Thank you for your support.

Jane Bajgar

Institution: University of Wollongong
Department of Psychology

Please note that consent will be assumed unless you indicate otherwise. If you **DO NOT** want your child to participate in the research project, please complete the form below. Forms must be returned to the school within a week.

I **DO NOT** want my child _____ to participate in the research project "*The role of emotional awareness in children's social adjustment*".

_____
Parent's signature

_____
Name of child

_____
Class

CDI [2]

Directions

Kids sometimes have different feelings and ideas. Below are some feelings and ideas put into groups. From each group of three sentences, pick one sentence that describes you *best* for the past two weeks. After you pick a sentence from the first group or box, go on to the next group.

There is no right answer or wrong answer. Just tick the box of the sentence that best describes the way you have been in the PAST TWO WEEKS.

[2] Item 9 (suicide) was not included in Study 3 due to ethical concerns relating to passive consent protocols.

Item 1 ☐ I am sad once in a while. ☐ I am sad many times. ☐ I am sad all the time.	Item 8 ☐ All bad things are my fault. ☐ Many bad things are my fault. ☐ Bad things are not usually my fault.
Item 2 ☐ Nothing will ever work out for me. ☐ I am not sure if things will work out for me. ☐ Things will work out for me O.K.	Item 9 ☐ I do not think about killing myself. ☐ I think about killing myself but I would not do it. ☐ I want to kill myself.
Item 3 ☐ I do most things O.K. ☐ I do many things wrong. ☐ I do everything wrong.	Item 10 ☐ I feel like crying every day. ☐ I feel like crying many days. ☐ I feel like crying once in a while.
Item 4 ☐ I have fun in many things. ☐ I have fun in some things. ☐ Nothing is fun at all.	Item 11 ☐ Things bother me all the time. ☐ Things bother me many times. ☐ Things bother me once in a while.
Item 5 ☐ I am bad all the time. ☐ I am bad many times. ☐ I am bad once in a while.	Item 12 ☐ I like being with people. ☐ I do not like being with people many times. ☐ I do not want to be with people at all.
Item 6 ☐ I think about bad things happening to me once in a while ☐ I worry that bad things will happen to me. ☐ I am sure that terrible things will happen to me.	Item 13 ☐ I cannot make up my mind about things. ☐ It is hard to make up my mind about things ☐ I make up my mind about things easily.
Item 7 ☐ I hate myself. ☐ I do not like myself. ☐ I like myself.	Item 14 ☐ I look O.K. ☐ There are some bad things about my looks. ☐ I look ugly.

Item 15 ☐ I have to push myself all the time to do my schoolwork. ☐ I have to push myself many times to do my schoolwork ☐Doing schoolwork is not a big problem.	Item 22 ☐ I have plenty of friends. ☐ I have some friends but I wish I had more. ☐ I do not have any friends.
Item 16 ☐ I have trouble sleeping every night. ☐ I have trouble sleeping many nights. ☐ I sleep pretty well.	Item 23 ☐ My schoolwork is alright. ☐ My schoolwork is not as good as before. ☐ I do very badly in subjects I used to be good in.
Item 17 ☐ I am tired once in a while. ☐ I am tired many days. ☐ I am tired all the time.	Item 24 ☐ I can never be as good as other kids. ☐ I can be as good as other kids if I want to. ☐ I am just as good as other kids.
Item 18 ☐ Most days I do not feel like eating. ☐ Many days I do not feel like eating. ☐ I eat pretty well.	Item 25 ☐ Nobody really loves me. ☐ I am not sure if anybody loves me. ☐ I am sure that somebody loves me.
Item 19 ☐ I do not worry about aches and pains. ☐ I worry about aches and pains many times. ☐ I worry about aches and pains all the time.	Item 26 ☐ I usually do what I am told. ☐ I do not do what I am told most times. ☐ I never do what I am told.
Item 20 ☐ I do not feel alone. ☐ I feel alone many times. ☐ I feel alone all the time.	Item 27 ☐ I get along with people. ☐ I get into fights many times. ☐ I get into fights all the time.
Item 21 ☐ I never have fun at school. ☐ I have fun at school only once in a while . ☐ I have fun at school many times.	

D-2 (ii)

RCMAS

Directions

Here are some sentences that tell how some people think and feel about themselves. Read each sentence carefully. Circle the word "Yes" if you think it is true about you. Circle the word "No" if you think it is not true about you. Answer every question even if some are hard to decide. Do not circle both "Yes" and "No" for the same sentence.

There are no wrong or right answers. Only you can tell us how you think and feel about yourself. Remember, after you read each sentence, ask yourself "Is it true about me?" If it is, circle "Yes". If it is not, circle "No".

1.I have trouble making up my mind.	YES	NO
2. I get nervous when things do not go the right way for me.	YES	NO
3. Others seem to do things easier than I can.	YES	NO
4. I like everyone I know.	YES	NO
5. Often I have trouble getting my breath.	YES	NO
6. I worry a lot of the time.	YES	NO
7. I am afraid of a lot of things.	YES	NO
8. I am always kind.	YES	NO
9. I get mad easily.	YES	NO
10. I worry about what my parents will say to me.	YES	NO
11. I feel that others do not like the way I do things.	YES	NO
12. I always have good manners.	YES	NO
13. It is hard for me to get to sleep at night.	YES	NO
14. I worry about what other people think about me.	YES	NO
15. I feel alone even when there are people with me.	YES	NO

16. I am always good.	YES	NO
17. Often I feel sick in my stomach.	YES	NO
18. My feelings get hurt easily.	YES	NO
19. My hands feel sweaty.	YES	NO
20. I am always nice to everyone.	YES	NO
21. I am tired a lot.	YES	NO
22. I worry about what is going to happen.	YES	NO
23. Other children are happier than I.	YES	NO
24. I tell the truth every single time.	YES	NO
25. I have bad dreams.	YES	NO
26. My feelings get hurt easily when I am fussed at.	YES	NO
27. I feel someone will tell me I do things the wrong way.	YES	NO
28. I never get angry.	YES	NO
29. I wake up scared most of the time.	YES	NO
30. I worry when I go to bed at night.	YES	NO
31. It s hard for me to keep my mind on my schoolwork.	YES	NO
32. I never say things I shouldn't.	YES	NO
33. I wiggle in my seat a lot.	YES	NO
34. I am nervous.	YES	NO
35. A lot of people are against me.	YES	NO
36. I never lie.	YES	NO
37. I often worry about something bad happening to me.	YES	NO

D-2 (iii)

FEELINGS QUESTIONNAIRE

Directions

Below are a number of statements which boys and girls use to describe themselves when they feel angry or very angry. Read each statement carefully and decide if it is *hardly-ever,* or *sometimes,* or *often* true for you. Then for each statement, put a tick in the box in front of the word which seems to describe how you feel or act when you are anger or very angry. There are no right or wrong answers. Do not spend too much time on any one statement. Remember, choose the word which seems to describe how you usually feel or act when you are angry or very angry.

1. I control my temper	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
2. I show my anger	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
3. I hold my anger in	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
4. I talk to someone until I feel better	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
5. I do things like slam doors	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
6. I hide my anger	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
7. I keep my cool	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
8. I attack whatever it is that makes me angry	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
9. I get mad inside but I don't show it	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
10. I do something totally different until I calm down	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
11. I say mean things	☐ **hardly-ever**	☐ **sometimes**	☐ **often**

12. I can stop myself from losing my temper	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
13. I try to calmly settle the problem	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
14. I lose my temper	☐ **hardly-ever**	☐ **sometimes**	☐ **often**
15. I'm afraid to show my anger	☐ **hardly-ever**	☐ **sometimes**	☐ **often**

D-2 (iv)

MCSDS

Directions

Below are a number of statements about how people sometimes feel. Circle the word "true" if you think it is true about you. Circle the word "false" if you think it is not true about you. Answer every statement even if some are hard to decide. Do not circle both "true" and "false" for the same sentence.

There are no wrong or right answers. Only you can tell us how you feel sometimes.

1. It is sometimes hard for me to go on with my work if I am not encouraged.	TRUE	FALSE
2. I sometimes feel resentful when I don't get my way.	TRUE	FALSE
3. On a few occasions, I have given up doing something because I thought too little of my ability.	TRUE	FALSE
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.	TRUE	FALSE
5. No matter who I am talking to, I'm always a good listener.	TRUE	FALSE
6. There have been occasions when I took advantage of someone.	TRUE	FALSE
7. I'm always willing to admit it when I made a mistake.	TRUE	FALSE
8. I sometimes try to get even rather than forgive and forget.	TRUE	FALSE
9. I am always courteous, even to people that are disagreeable.	TRUE	FALSE
10. I have never been annoyed when people expressed ideas very different from my own.	TRUE	FALSE
11. There have been times when I was quite jealous of the good fortune of others.	TRUE	FALSE
12. I am sometimes irritated by people who ask favours of me.	TRUE	FALSE
13. I have never deliberately said something that hurt someone's feelings.	TRUE	FALSE

D-2 (v)

CRSQ

Name: _____Age: _____ Gender: Male / Female (please circle)

1. Imagine you want to but a present for someone who is really important to you, but you don't have enough money. So, you ask a kid in your class if you could please borrow some money. The kid say "Okay wait for me outside the front door after school. I'll bring the money." As you stand outside waiting, you wonder if the kid will really come.

How NERVOUS would you feel, RIGHT THEN, about whether or not the kid will show up?

Not nervous Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not the kid would show up?

Not mad Very, very mad

1	2	3	4	5	6

Do you think the kid will show up to give you the money?

YES!!! NO!!!

1	2	3	4	5	6

2. Imagine you are the last to leave your classroom for lunch one day. As you're running down the stairs to get to the canteen, you hear some kids whispering on the stairs below you. You wonder if they are talking about you.

How NERVOUS would you feel, RIGHT THEN, about whether or not those kids were badmouthing you?

Not nervous Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not those kids were badmouthing you?

Not mad Very, very mad

1	2	3	4	5	6

Do you think they were saying bad things about you?

YES!!! NO!!!

1	2	3	4	5	6

3. Imagine that a kid in your class tells the teacher that you were picking on him/her. You say you didn't do it. The teacher tells you to wait in the hallway and she will speck to you. You wonder if the teacher will believe you.

How NERVOUS would you feel, RIGHT THEN, about whether or not the teacher will believe your side of the story?

Not nervous Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not the teacher will believe your side of the story?

Not mad Very, very mad

1	2	3	4	5	6

Do you think she will believe your side of the story?

YES!!! NO!!!

1	2	3	4	5	6

4. Imagine you had a really bad fight the other day with a friend. Now you have a serious problem and you wish you had your friend to talk to. You decide to wait for your friend after class and talk with him/her. You wonder if your friend will want to talk to you.

How NERVOUS would you feel, RIGHT THEN, about whether or not your friend will want to talk to you and listen to your problem?

Not nervous — Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not your friend will want to talk to you and listen to your problem?

Not mad — Very, very mad

1	2	3	4	5	6

Do you think he/she will want to talk to you and listen to your problem?

YES!!! — NO!!!

1	2	3	4	5	6

5. Imagine that a famous person is coming to visit your school. Your teacher is going to pick five kids to meet this person. Your wonder if she will choose you.

How NERVOUS would you feel, RIGHT THEN, about whether or not your teacher will choose you?

Not nervous — Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not your teacher will choose you?

Not mad — Very, very mad

1	2	3	4	5	6

Do you think your teacher will choose you?

YES!!! — NO!!!

1	2	3	4	5	6

6. Imagine you have just moved and you are walking home from school. You wish you had someone to walk home with. You look up and see in front of you another kid from class, and you decide to walk up to this kid and start talking. As you rush to catch up, you wonder if he/she will want to talk to you.

How NERVOUS would you feel, RIGHT THEN, about whether or not he/she will want to talk to you?

Not nervous — Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not he/she will want to talk to you?

Not mad — Very, very mad

1	2	3	4	5	6

Do you think he/she will want to talk to you?

YES!!! — NO!!!

1	2	3	4	5	6

7. Now imagine that you're back in class. Your teacher asks for a volunteer to help plan a party for your class. Lots of kids raise their hands so you wonder if the teacher will choose you.

How NERVOUS would you feel, RIGHT THEN, about whether or not the teacher will choose you?

Not nervous — Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not the teacher will choose you?

Not mad — Very, very mad

1	2	3	4	5	6

Do you think the teacher will choose you?

YES!!! NO!!!

1	2	3	4	5	6

8. Imagine it's Saturday and you're carrying groceries home for your family. It is raining hard and you want to get home FAST. Suddenly, the paper bag you are carrying rips. All your food tumbles to the ground. You look up and see a couple of kids from your class walking quickly. You wonder if they will stop and help you.

How NERVOUS would you feel, RIGHT THEN, about whether or not those kids will want to stop and help you?

Not nervous Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not those kids will want to stop and help you?

Not mad Very, very mad

1	2	3	4	5	6

Do you think they will offer to help you?

YES!!! NO!!!

1	2	3	4	5	6

9. Pretend you have moved and your are going to a different school In this school, the teacher lets the kids in the class take home a video game to play with on the weekend. Every week so far, you have watched someone else take it home. You decide to ask the teacher if YOU can take home the video game this time. You wonder if she will let you have it.

How NERVOUS would you feel, RIGHT THEN, about whether or not the teacher will let you take the video game home this time?

Not nervous Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not the teacher will let you take the video game home this time?

Not mad Very, very mad

1	2	3	4	5	6

Do you think the teacher is going to let you take home the video game this time?

YES!!! NO!!!

1	2	3	4	5	6

10. Imagine you're back in your classroom, and everyone is splitting up into six groups to work on a special project together. You sit there and watch lots of other kids getting picked. As you wait, you wonder if the kids will want you for their group.

How NERVOUS would you feel, RIGHT THEN, about whether or not they will chose you?

Not nervous Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not they will choose you?

Not mad

1	2	3	4	5	6

Do you think the kids in your class will choose you for their group?

YES!!! NO!!!

1	2	3	4	5	6

11. Imagine that your family has moved to a different neighbourhood and you're going to a new school. Tomorrow is a big maths test, and you are really worried because you don't understand this maths at all! You decide to wait after class and speck to you teacher. You wonder is she will offer to help you.

How NERVOUS would you feel, RIGHT THEN, about whether or not the teacher will offer to help you?

Not nervous — Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not the teacher will offer to help you?

Not mad — Very, very mad

1	2	3	4	5	6

Do you think the teacher will offer to help you?

YES!!! — NO!!!

1	2	3	4	5	6

12. Imagine you're in the toilets at school and you hear your teacher outside talking about a student with another teacher. You hear her say that she really doesn't like having this child in her class. You wonder if she could be talking about YOU.

How NERVOUS would you feel, RIGHT THEN, about whether or not the teacher was talking about you?

Not nervous — Very, very nervous

1	2	3	4	5	6

How MAD would you feel, RIGHT THEN, about whether or not the teacher was talking about you?

Not mad — Very, very mad

1	2	3	4	5	6

Do you think the teacher probably meant YOU when she said there was a kid she didn't like having in the class?

YES!!! NO!!!

1	2	3	4	5	6

D-2 (vi)

DES

Directions

Here are a number of statements about how people can feel in their daily lives. Tick whether you feel this way *never*, *hardly ever*, *sometimes*, *often* or *very often*.

In your daily life how often do you ……	**Never**	**Hardly ever**	**Sometimes**	**Often**	**Very often**
1. Feel regret, sorry about something you did.					
2. Feel sheepish, like you do not want to be seen.					
3. Feel glad about something.					
4. Feel like something stinks, puts a bad taste in your mouth.					
5. Feel you can't stand yourself					
6. Feel embarrassed when anybody sees you make a mistake.					
7. Feel unhappy, blue, downhearted.					
8. Feel surprised, like when something suddenly happens you had no idea would happen.					
9. Feel like somebody is a low-life, not worth the time of day.					
10. Feel shy, like you want to hide.					
11. Feel like what you're doing or watching is interesting.					
12. Feel scared, uneasy, like something might harm you.					

In your daily life, how often do you ……	**Never**	**Hardly ever**	**Sometimes**	**Often**	**Very often**
13. Feel mad at somebody.					
14. Feel mad at yourself .					
15. Feel happy.					
16. Feel like somebody is "good for nothing".					
17. Feel so interested in what you're doing that you're caught up in it.					
18. Feel amazed, like you can't believe what's happened, it was so unusual.					
19. Feel fearful, like you're in danger, very tense.					
20. Feel like screaming at somebody or banging on something.					
21. Feel sad and gloomy, almost like crying.					
22. Feel like you did something wrong.					
23. Feel bashful, embarrassed.					
24. Feel disgusted, like something is sickening.					
25. Feel joyful, like everything is going your way, everything is rosy.					
26. Feel like people laugh at you. 27.					
28. Feel like things are so rotten they could make you sick.					
29. Feel sick about yourself.					
30. Feel like you are better than somebody.					

In your daily life, how often do you ……	**Never**	**Hardly ever**	**Sometimes**	**Often**	**Very often**
31. Feel like you ought to be blamed for something.					
32. Feel the way you do when something unexpected happens.					
33. Feel alert, curious, kind of excited about something unusual.					
34. Feel angry, irritated, annoyed with somebody.					
35. Feel discouraged, like you can't make it, nothing's going right.					
35. Feel afraid.					
36. Feel like people always look at you when anything goes wrong.					

D-3

UNIVERSITY OF WOLLONGONG

Debrief Form

Research Project: ***The role of emotional awareness in children's social adjustment.***

By completing these questionnaires we have measured your experience of emotions like anger, anxiety and sadness in your every day life, and your awareness of emotions in yourself and in other people. We also gathered information about kids you like and don't like to hang around with at school.

It is possible that after completing the questionnaires you might like to talk to someone about how things are going at school or about how you are feeling. It is often a really good idea to talk to someone about your worries or your feelings. Often someone else can help just by understanding, or they might be able to give you some ideas about how you could solve the problem.

There are many people you can talk to. Try talking to a trusted and responsible adult. Here are some ideas: your teacher, your parents, or the school counsellor. *Going to the school counsellor is really good. S/he is available if you're upset, or just need to talk.*

If you would like to talk with Mrs Bajgar about the questionnaires, or about who else you can talk to, she'll be happy to speak with you.

D-4

School: _____ Class: _____ ID No:

Name: _____ Age: _____ Gender: Male / Female (please circle)

Below is a list of some students in your class.

Put a **tick** next to **three children you like the most.**	Put a **cross** next to **three children you like the least**

(list of student names)	(list of student names)

Put a **tick** next to the kids who are **afraid of new things or new situations**	Put a **tick** next to the kids who **would rather play alone rather than with others.**

(list of student names)	(list of student names)

Study 3 only [3]

Put a **tick** next to the kids who **have a good sense of humour**	Put a **tick** next to the kids who **are cooperative**

(list of student names)	(list of student names)

[3] The behavioural descriptors on this page, *humour* and *cooperative*, were used in Study 3 only. This page was not present in the peer nomination task in Study 2.

Put a **tick** next to the kids who **start fights and arguments.**	Put a **tick** next to the kids who **are very shy.**

(list of student names)	(list of student names)

Put a **tick** next to the kids who **pick on others and tease others too much.**	Put a **tick** next to the kids who **get really worried about lots of things.**

(list of student names)	(list of student names)

Posthoc exploration of differences between the aggressive-rejected, withdrawn-rejected and average groups: Within gender

Gender differences in emotion experiences and emotion processes were explored within the aggressive-rejected, withdrawn-rejected and average groups [see Table D-2 (i) and Table D-2 (ii)]. Given the relatively small sample sizes of some groups it was not feasible to conduct formal parametric analyses. Focus was given to these three groups only because these groups were the focus of the research hypotheses.

It was hypothesised that the withdrawn-rejected subgroup would report higher levels of distress than the aggressive-rejected and average groups. This pattern appeared to be more evident among withdrawn-rejected males than withdrawn-rejected females. Descriptively, withdrawn-rejected males reported higher levels of depression, anxiety and negative emotions and lower levels of positive emotions when compared to males in the aggressive-rejected or average groups. Females in the withdrawn-rejected group reported more depression than the average group, but less anxiety and less negative emotions than the average group. Contrary to expectations, females in the aggressive-rejected subgroup reported higher levels of depression, anxiety and negative emotions compared to the females in the withdrawn-rejected and average groups. Males in the aggressive-rejected group generally reported distress levels which were comparable to the average group and which were consistent with the research hypotheses.

In relation to emotion processes, it had been expected that the aggressive-rejected subgroup would report higher levels of denial, and lower levels of rejection sensitivity and emotional awareness. Neither males nor females in the aggressive-rejected group report higher levels of denial when compared to the other two groups. It had been expected that the levels of angry rejection sensitivity reported by aggressive-rejected group would be similar to the levels reported by the average group. This pattern was clearer among females while males in the aggressive-rejected group appeared to report higher levels of angry rejection sensitivity than males in the average group. It had been expected that the withdrawn-rejected group would report higher levels of anxious rejection sensitivity than the average group. This pattern was more evident among males than among females. It had been expected that the aggressive-rejected group would report lower levels of emotional awareness than the average and withdrawn-rejected groups. Males in the aggressive-rejected subgroup reported the lowest levels of emotional awareness compared to males in the other groups. Females in the aggressive-rejected subgroup reported the highest levels of emotional awareness compared to females in the other groups.

From an exploratory viewpoint only, a series of independent t-tests were conducted within gender to assess differences in emotion experiences and emotion processes between the aggressive-rejected subgroup and average group and the withdrawn-rejected subgroup and average group. These comparisons were limited to two groups to enhance statistical power. Multiple tests were run so the results need to be considered cautiously

given the elevated risk of Type 1 error. Thus, the results are considered relatively speculative.

In relation to emotion experiences, withdrawn-rejected males were found to report significantly more anxiety, negative emotions and anger suppression and significantly less positive emotions when compared to the average group; 1-tailed, t (77) = 1.99, p = .03; t (77) = 1.66, p = .05; t (77) = 2.45, p = .01 and t (77) = -1.82, p = .04 respectively. There were no differences in emotion experiences between withdrawn-rejected females and females in the average group. The emotion experiences reported by aggressive-rejected males were no different to those reported by males in the average group. Aggressive-rejected females reported significantly higher levels of depression compared to females in the average group; 1-tailed, t (87) = 2.25, p = .02. There was little evidence of differences in emotion processes between males and between females in the aggressive-rejected and average groups and the withdrawn-rejected and average groups.

It would appear from these exploratory results that the expected effects of higher distress in the withdrawn-rejected subgroup but not in the aggressive-rejected subgroup are present for males. These results are sufficiently suggestive to support consideration of future research which uses larger samples and / or restricts future tests of these hypotheses to young males.

Table D-5 (i)

Means and Standard Deviations for emotion experiences across three groups: Males and females

	Males			Females		
Emotion Experiences	AR[a] (n=13)	WR[b] (n=19)	Av[c] (n=63)	AR (n=22)	WR (n=6)	Av (n=67)
CDI	10.08	10.68	9.06	11.23	10.33	7.18
	(8.18)	(6.69)	(6.64)	(10.65)	(11.08)	(5.90)
RCMAS	11.15	13.11	9.98	13.91	12.17	12.22
	(4.51)	(6.31)	(5.78)	(5.41)	(6.15)	(5.22)
DES Positive	30.85	29.89	31.92	31.64	31.17	32.25
	(6.01)	(4.76)	(4.85)	(4.23)	(5.74)	(4.24)
DES Negative	63.33	71.21	65.03	66.00	63.00	63.18
	(7.02)	(16.07)	(13.85)	(15.26)	(10.90)	(12.33)
PAES Out	10.69	9.21	9.67	8.91	8.50	7.96
	(2.78)	(2.53)	(2.43)	(2.83)	(3.39)	(2.03)
PAES Suppress	9.85	10.42	8.81	10.27	9.67	10.00
	(2.94)	(3.19)	(2.09)	(1.96)	(2.50)	(2.46)
PAES Control	9.31	10.26	10.33	10.82	11.33	11.24
	(2.72)	(2.26)	(2.67)	(2.15)	(3.39)	(1.92)

[a] Aggressive-rejected subgroup; [b] Withdrawn-rejected subgroup [c] Average group

Table D-5 (ii)

Means and Standard Deviations for emotion processes across three groups: Males and females

	Males			Females		
	AR[a]	WR[b]	Av[c]	AR	WR	Av
Emotion Processes	(n=13)	(n=19)	(n=63)	(n=22)	(n=6)	(n=67)
Denial	1.92	2.47	1.73	1.91	3.67	2.28
	(2.10)	(2.76)	(1.99)	(2.35)	(2.94)	(2.26)
Rejection sensitivity: Angry	10.32	8.85	9.15	8.96	9.25	8.36
	(3.48)	(4.23)	(4.14)	(3.64)	(3.67)	(3.69)
Rejection sensitivity :Anxious	10.45	10.76	9.53	9.75	10.44	10.20
	(4.07)	(5.07)	(4.30)	(3.62)	(4.26)	(4.06)
Emotional Awareness	32.38	33.79	34.65	37.27	36.00	36.70
	(5.28)	(4.26)	(4.55)	(5.09)	(6.32)	(4.51)

[a] Aggressive-rejected subgroup; [b] Withdrawn-rejected subgroup [c] Average group