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An Attributional Analysis of Peer Victimisation and Bullying Behaviour in School Children: A Replication and Extension

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Abstract

Bullying and victimisation of children by their peers' is a perennial problem. Previous studies have shown that both the bully and the victimised child are at risk of psychological problems at the time and in later life.

In this study the relationship between characterological versus behavioural self-blaming attributions for victimisation and maladjustment, and peer reactions (rejection/acceptance) was examined in a replication of a study by Graham and Juvonen (1998a). Graham and Juvonen's (1998a) study was also extended here by looking at an extended age range, teachers' views and issues related to bullying.

One hundred and sixty-one participants (51 males, 110 females) ranging in age from 10 to 17 years old completed questionnaires that assessed self-perceptions of bullying behaviour and victim status, attributions for hypothetical victimisation situations, and feelings of loneliness, social anxiety, and self-worth. Participants also completed peer-rating measures looking at perceptions of others' bullying behaviour and victim status, and their acceptance and rejection of others in their class. Classroom teachers' completed a measure rating participants in their class on bullying behaviour and victim status.

In terms of victimisation, results suggest that as in Graham and Juvonen (1998a) characterological self-blame (CSB) partially mediated the relationship between self-perceived victimisation and adjustment problems. Also consistent with the findings of Graham and Juvonen (1998a), self views of victim status were more predictive of intrapersonal factors (loneliness, social anxiety, and self-worth) and others' (peers' and teachers') views were more predictive of interpersonal factors (peer acceptance/rejection).

In terms of bullying behaviour, participants' who reported high levels of self-perceived bullying behaviour also reported lower levels of self-worth. This relationship was moderated by peer perceptions of bullying. Additionally, peers' perceptions of bullying behaviour were related to higher levels of rejection by peers. Further, this rejection was more pronounced when teachers viewed the children as bullies. Further, some supplementary results are discussed, and limitations and suggestions for further research are proposed.

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CHAPTER 1

INTRODUCTION

Bullying has been increasingly in the media in the last year or so, as people are becoming more aware of the prevalence and the potentially detrimental effect that it can have on children. An article in the Palmerston North Evening Standard in December 7th 1998 reported that one-quarter of New Zealand school children are being bullied. Additionally, researcher Vivienne Adair from the University of Auckland has commented, "These results reflect international trends, and while we haven't had any of the serious violent assaults that we see in America, it may not be long before we do if schools don't start addressing the problem."(Evening Standard, Dec. 7th 1998; p. 5).

Both the perpetrators of these acts of aggression and their victim are at risk of later maladjustment (Olweus, 1992; Parke & Slaby, 1983). There are a number of salient factors when looking at the link between peer directed aggression and maladjustment. However, due to the lack of consensus over the definition of bullying, and the number of different methodologies used to collect information, it is difficult to accurately determine the prevalence of peer directed aggression (Grotspeter & Crick, 1996). Despite this, there have been a number of factors shown to be associated with bullying. Peer rejection has been recognised as a mediator between aggression in children and maladjustment in a large number of aggressive children although this link is not found in all cases (Graham & Juvonen, 1998b). There is also a strong link between aggression in childhood and problems with offending in adolescence and young adulthood (Parker & Asher, 1987), and with poor outcomes at school (Coie, Dodge & Kupersmidt, 1990).

One explanation of peer aggression is proposed by Crick and Dodge (1994). This theory attempts to explain from a social cognitive perspective how aggressive children interpret the actions of others and then use these interpretations to determine how they will react to the situation presented to

them. Chapter Two of this examines this model and other factors involved in bullying and peer aggression.

Chapter Three of this review focuses on the victim of peer-directed aggression. Most of the American research in the area of peer directed aggression has been focused on the aggressor. Little research there has looked at the victims of peer aggression (Graham & Juvonen, 1998a). This is in contrast to Europe, where the effects of peer victimisation have been studied since the early seventies (see Olweus, 1992). Victimisation in childhood has been linked to difficulties such as peer rejection (Whitney & Smith, 1993), low self-esteem (Slee, 1995) loneliness (Boulton & Underwood, 1992), anxiety (Olweus, 1993), depression (Grotzinger & Crick, 1996), and a dislike of school (Boulton & Underwood, 1992). This presents a potentially unpleasant picture of the school years of a child who is bullied.

One theory that has been suggested to explain the reactions of victims is that they may blame themselves. In the absence of any other explanation, the child may decide that it is something about them that makes the bully pick on them (Graham & Juvonen, 1998a). In the literature on adult rape victims, Janoff-Bulman (1979) made a distinction between two types of self-blame: behavioural self-blame (BSB) and characterological self-blame (CSB). She distinguished between the two types of self-blame on the dimensions of stability and controllability. Taken into the arena of childhood victimisation, CSB is perceiving for example, that you are being teased because of a physical abnormality (stable, uncontrollable), and BSB is perceiving that it is because of unique clothing choice (unstable, controllable).

In adults, it has been shown that making characterological self-blaming attributions for negative events is more harmful to the individual's recovery from illness and accidents and their mental wellbeing than making behavioural self-attributions (see literature review in Anderson, et al. 1994). However, this definition of CSB as "bad" and BSB as "good" has not been consistent in all

research in this area. In a number of studies, BSB showed no effect on recovery from injury (Peterson, Schwartz, & Seligman, 1981) and, in some cases, it has been associated with reduced recovery (Meyer & Taylor, 1986). The relatively small amount of childhood research in this area shows a similar pattern to that seen in the adult literature (Cole, Peeke, & Ingold, 1996; Graham and Juvonen, 1998a). That is, CSB may be harmful to recovery from victimisation, but the effect of BSB is uncertain.

A description of the present study and hypotheses (Chapter 4) finishes the Introduction. The Method (Chapter 5), Results (Chapter 6) and Discussion (Chapter 7) of the present study then follows.

CHAPTER 2

BULLYING AND PEER AGGRESSION IN CHILDREN

Bullying is a concept used in everyday parlance to describe a wide variety of acts and actions. Anything from assault to exclusion has come under the umbrella of bullying (Grotzinger & Crick, 1996). Therefore, although two people may use the same word to describe what is happening to them or others, their experiences may be vastly different. Such a situation makes an operational definition of bullying problematic.

2.1 Definition and Prevalence

A similar problem with definition exists in the research community. That is, many definitions of bullying have been put forward in the psychological and educational literature. Pepler & Craig (1997) define bullying as the assertion of power through aggression. This definition lacks precision. Consequently, it can cover a large range of behaviours that some would not consider bullying. An example of this would be two children having a fight in the playground. Both are attempting to assert power through aggression, but this type of action would not normally be seen as bullying. Oliver, Hoover & Hazler (1994) defined bullying as "long term victimisation of a student by peers... refers to both group and individual attacks... and includes both physical and psychological attacks" (p.416). This requires a further definition of victimisation, raising the concern that although definitions given in the literature capture aspects of what bullying is, most are not comprehensive.

Through reviewing the literature three key themes in varying definitions of bullying emerged: (a) Power differential: the bully must be either physically or psychologically more powerful than the victim (Boulton & Underwood, 1992; Rigby, 1998; Salmivalli, Karhunen, & Lagerspetz, 1996; Smith and Thompson, 1991); (b) Intentionality: the bully must have intended to intimidate or hurt the victim (Boulton & Underwood, 1992; Kumpulainen et al., 1998; Rigby, 1998;

Smith and Thompson, 1991; Tattum & Tattum, 1996); (c) Repetition: the bullying act must take place more than once (Banks, 1997; Boulton & Smith, 1994; Pellegrini, 1998; Pellegrini, Bartini, & Brooks, 1999; Rigby, 1999). All of the definitions cited above use one or two of these themes but very few studies have used all three. This overall lack of consensus makes it difficult to get a clear picture of the incidence, rates, and severity of bullying across different studies (Siann, Callaghan, Lockhart, & Rawson, 1993, 1994). These three dimensions, however, are captured in a definition by Olweus (1992):

A person is being bullied or victimised when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other persons... A negative action takes place when someone intentionally inflicts, or attempts to inflict, injury or discomfort on another... Negative actions can be carried out by physical contact, by words, or in other ways, such as making faces or obscene gestures or refusing to comply with another person's wishes. It must be stressed that the term *bullying* and *victimisation* do not apply when two persons of approximately the same strength (physical or psychological) are fighting or quarrelling. (Olweus, 1992, p.280).

This definition, and variations on it, has been used in a number of other studies (Kumpulainen et al., 1998; Olweus, 1991; Slee & Rigby, 1994).

2.1.1 Subtypes of aggression

Bullying is one form of peer-focused aggression. Unfortunately, aggressive children do not fall into one easily identifiable group. Recognising that there are differences in aggressive children, researchers have distinguished some subgroups in peer-directed aggression. The first distinction made was between those children who displayed hostility in response to the provocation of another

person (reactive aggression) and those children who did not necessarily need provocation to act aggressively (proactive aggression; Crick & Dodge, 1994; Dodge & Coie, 1987; Fried & Fried, 1996).

Reactive aggression is seen as aggression in response to a perceived threat -- a defence reaction in which a perception of threat and the feeling of anger leads the individual to retaliate. The purpose of this type of aggression is not to achieve a predetermined goal. Rather, it is a reaction to a perceived threatening situation. Consequently, it is not generally associated with bullying (Dodge, Coie, Pettit, & Price, 1990). In contrast, a type of aggression more associated with bullying is proactive aggression. Unlike reactive aggression, interpretation of threat is not the central focus. Rather, the anticipation of an instrumental outcome (such as material gain) is the motivation for this type of aggression. Thus, these particular acts of coercion, dominance, or bullying are instigated without immediate provocation (Dodge & Coie, 1987).

Another distinction that can be made is between direct and indirect forms of aggression. Direct aggression can be defined as "harming others through physical aggression, verbal threats, instrumental intimidation" (Crick & Grotpeter, 1995; p.711). These authors note that proactive and reactive aggression have been observed in both verbal and physical forms of direct aggression and direct forms are seen more often in boys.

Indirect aggression has not been looked at to the same extent as direct aggression. Studies that have been done (Crick, Bigbee & Howes, 1996; Crick & Grotpeter, 1995) investigating indirect aggression have described it as being focused on manipulating and damaging friendships, and also concentrating on behaviours that undermine another's inclusion in a peer group. Crick and her colleagues have also labelled this form of aggression 'relational'. One study defined relational aggression as "harming others through purposeful manipulation and damage of their peer relationships" (Crick and Grotpeter, 1995; p. 711). This type of aggression uses tactics such as social exclusion,

spreading rumours, or threatening to withdraw friendship in order to manipulate a peer into some form of compliance (Crick, 1996). The fact that this type of aggression is seen more in girls than in boys is in line with results showing that this type of aggression is more also distressing for girls than for boys (Crick, et al., 1996; Grotzinger & Crick, 1995).

In summary, there are three key aspects in the definition of peer aggression: power differential, intentionality, and repetition. These aspects can come in the form of direct or indirect (relational) physical or verbal aggression, which can be either proactive or reactive. The current study looks at the effects of direct, proactive physical and verbal aggression. The definition of bullying used was extrapolated from the measures used in the study, following Graham and Juvonen (1998a). The attribution scenarios (Graham & Juvonen, 1998a) captured the themes of power differential and intentionality but did not fully take into account repetition as the focus of the assessment was on two separate situations. However, the bullying behaviour scale (Austin and Joseph, 1996) used in the current study captures all three aspects of peer aggression (power differential, intentionality, and repetition) focusing on direct, proactive physical and verbal aggression.

2.1.2 Prevalence

In looking at the prevalence of bullying, a study done by Peter Smith and Irene Whitney in 1990, surveyed 2,623 primary and 4,135 secondary school students in the United Kingdom asking them about their experiences of both direct and indirect forms of bullying (Sharp and Smith, 1994). They found that in the primary schools, 12% of students (n=342) reported bullying others more than once or twice a term and 4% (n=105) reported bullying at least once a week. In the secondary school sample, the prevalence was lower, with 6% (n=248) reporting bullying once or twice a term and only 1% (n=41) bullying at least once a week. They reported that levels of bullying varied from school to school but all schools had some bullying (Sharp and Smith, 1994). This is one of the

few studies in the 1990's that looked at the prevalence of the bullies. The focus of prevalence research has, in the last decade, turned more towards the prevalence of victims. As the information on prevalence is more focused on the incidence of victimisation, prevalence is discussed in greater detail in the next chapter (section 3.1).

Given the foregoing review of definitions and prevalence, attention is now turned to a review of the other major constructs that were examined in the current study. These factors include peer acceptance/rejection and self-perceptions including loneliness, social anxiety and self-worth. In addition a social cognitive model is examined to look at the attributions of aggressive children.

2.2 Consequences of Peer Aggression

The research reviewed in this section indicates that peer aggression such as bullying can indeed represent a problem during school years. Indications are that it can also relate to short and long term psychological problems for both the bully and the victim (Bijttebier & Vertommen, 1998; Boulton & Smith, 1994). Aggressive children are more likely to be rejected by peers, have low self-esteem, are more at risk of suspension, expulsion, dropping out of school and psychological maladjustment in later life than non-aggressive children (Coie, Dodge & Kupersmidt, 1990; Parker & Asher, 1987).

2.2.1 Peer Rejection/Acceptance

Parker and Asher (1987) did an extensive review of the literature on peer-rejection and psychopathology. This article set the stage for what has become the prevailing view of the link between aggression and rejection by peers. The review linked aggressiveness in childhood to a number of negative outcomes in adolescence and young adulthood, proposing that these outcomes were partially mediated by lack of peer acceptance (Parker & Asher, 1987).

Therefore, this model proposes that "aggressive children are rejected by their peers and rejection, in turn, is a precursor to maladjustment" (Graham & Juvonen, 1998b; p.29). Other studies have offered similar observations of the link between aggression, rejection, and maladjustment.

Coie, Lochman, Terry, & Hyman (1992) investigated the relationship between aggression, peer rejection, and early adolescent mental disorder. They found that, in their sample of third grade children, parents reported externalising symptomatology in participants who were aggressive and rejected by their peers. In contrast, aggressive rejected children rated themselves as having more internalising problems. This finding was supported by Boulton (1999), who found that children with low peer acceptance have been found to engage in more aggressive/disruptive behaviour, more solitary behaviour or both.

Lack of friends has also been shown to mediate the relationship between aggression and some forms of subsequent maladjustment (Boivin & Hymel, 1997; Hodges, Boivin, Bukowski, & Vitaro, 1999). Boivin and Hymel (1997) showed that rejection by peers mediated the relationship between aggression and loneliness. Thus, aggressive children were significantly more lonely if they were also rejected.

Peer rejection has also been reported as related to other forms of psychological maladjustment. Coie et al. (1992) showed that in general less-liked girls were significantly more likely to exhibit disorder than well-liked girls (there was no significant difference between boys). In addition, 62% of aggressive, rejected third graders showed poor adjustment, compared to 18% of non-rejected, non-aggressive children. Furthermore, Austin and Joseph (1996), in their study of 425 8-11 year old school children, found that higher scores on their bully-behaviour scale were associated with lower self-worth and social acceptance. Paquette & Underwood (1999) reported that for boys and girls a higher frequency of both physical and social aggression was associated with lower perceptions of close friendships.

Unfortunately, in contrast to what might be expected, the link between aggression and rejection is not so clear cut. There are subsets of socially rejected children who are not aggressive (French, 1988), and there are subsets of aggressive children who are not rejected (Cairns et al., 1988). For example, Cairns et al. (1988) found that peers rated aggressive children as less popular and more frequently disliked than matched controls. This is in contrast to how the aggressive children rated themselves. The aggressive children and the control group rated themselves as having similar popularity. Further, although peers tended to view aggressive children as less popular, they were shown on peer ratings to be no more isolated than the control subjects. An analysis was then done to determine if aggressive youths form groups with other aggressive youths. This was found to be true of participants in early adolescence (grade seven, age 12-13) but not for the younger participants (grade four, age 9-10). Pellegrini et al., (1999) also found that, in their sample of fifth grade students (age 10-11), those children defined as bullies tended more often to have friendships with other bullies than non-bullies.

In terms of rejected, non-aggressive children, Cillessen, van IJzendoorn, van Lieshout, & Hartup (1992) found that in their sample of 231 primary school boys in the United States, only about half of the children who were rejected were also aggressive. The remainder of the rejected participants were either shy or not considered especially deviant.

2.2.2 Self-perceptions

It is not just peer reaction that has been assumed to be associated with aggression. It has also been long assumed that children who are aggressive also have low self-regard. To the contrary, it seems that most of the literature shows that aggressive participants see themselves in much the same light as their non-aggressive counterparts (Graham & Juvonen, 1998b). This is illustrated in a study by Hymel, Bowker, & Woody (1993) who found that when

aggressive fourth and fifth grade children rated themselves across academic, athletic, peer relationships, and appearance domains, their self-competence ratings were relatively high. Further, comparing their self-ratings with ratings by their peers, the participants were found to overestimate their competencies on all four of the domains. Similarly, in a study by Cairns et al. (1988), both aggressive participants and their controls rated themselves similarly in terms of popularity on the self-report measure, even though peers rated the aggressive participants as significantly lower in popularity.

Findings like these raise questions about the adaptiveness of these self-perceptions (Graham & Juvonen, 1998b). These self-perceptions can be looked at in two ways. For aggressive children, maintaining the belief that they are more liked and popular than they really are could be maladaptive. This belief may interfere with their ability to recognise the aspects of their behaviour that are a problem. This in turn may interfere with any intervention put in place to combat these problems (Graham & Juvonen, 1998b). From the opposite perspective, maintaining the illusion about one's popularity may serve a protective function for some aggressive youth. A number of studies agree that rejected, aggressive children are less lonely, anxious and depressed at school than their non-aggressive rejected counterparts (e.g. Boivin & Hymel, 1997; Zariski & Coie, 1996). This ability to construct positive self-perception may operate as a buffer that protects the child from these problems (Graham & Juvonen, 1998b).

Although it seems that aggressive children are not as at risk from psychological factors such as low self-esteem, loneliness and anxiety, there is evidence that aggression in childhood can lead to consequences such as failure at school and offending in adolescence and young adulthood (Graham & Juvonen, 1998b). There is no shortage of literature linking aggression with school failure (e.g., Cairns, Cairns & Neckerman, 1989; Morison & Masten, 1991; Parker & Asher, 1987). Although this link may not be causal in itself, aggression is consistently associated with problems at school. It is also associated with a number of other

factors that are predictive of low academic achievement (e.g. poverty, exposure to abusive parenting, low cognitive ability; Quay, 1987).

Kupersmidt and Coie (1990) found that in the fifth grade, peer-perceived aggression and school absences, but not peer rejection, were predictive of dropping out of school by the twelfth grade. This same relationship between aggression and dropping out of school was found by Cairns et al. (1989) for seventh grade children dropping out by the tenth grade. In a prospective study by Morison and Masten (1991), they reported that disruption and aggressiveness in primary school was related to low academic performance seven years later. In this study, early aggressiveness was also related to later trouble with the law and mental health problems such as chemical dependency.

Olweus (1993) reports that children who bully are four times more likely to continue on to juvenile and adult offending. Moreover, bullying other people, especially in an environment where it is tolerated, is a powerful reinforcer for conducting relationships in this manner in the future (Schwartz et al., 1998; Slee, 1992). In the review by Parker and Asher (1987) there appears to be established a clear and consistent link between aggression as perceived by teachers and subsequent juvenile and adult offending (see also Magnussen, Stattin, & Duner, 1983).

In an attempt to explain the reasoning of these aggressive children the literature on attribution theory is next reviewed. In particular, focus is centred on the functions of causal attribution followed by a social cognitive theory developed to explain the actions of aggressive children.

2.3 Attribution Theory

Attribution theory attempts to explain how people make a decision about what causes their behaviour, and the behaviour of those around them (Antaki, 1982). The attributions that a person makes about the world are their

explanations, or reasons, for what causes events to happen and people to behave in the way they do (Graham & Juvonen, 1998a, Kelley, 1973).

In 1958, Fritz Heider began the study of attributions. He proposed that the major task of an individual in trying to understand behaviours and actions of others was for them to find the underlying causes of the things that they saw happening (Antaki, 1982). According to Heider's (1958) analysis there are two basic ways that people are able to explain the causes of behaviour. The individual will either attribute the action to something about the person performing it, or to something within the environment. As a complete theory, Heider's division between internal and external causes was simplistic. It missed a number of the complexities of human action. However, it did take the first step in understanding ordinary peoples' explanations of the world of behavioural events (Antaki, 1982). This internal/external distinction became the dominant focus in the study of behavioural causation throughout the 1960s and 1970s (Weiner, 1985, 1986).

To develop a more comprehensive theory of attribution, Bernard Weiner and colleagues (e.g., Weiner, 1979, 1985, 1986) took the theory of causal structure developed by Heider (1958) and expanded it, giving a multidimensional explanation of perceived causality. This explanation incorporates Heider's dimension, 'locus of causality' (internal/external), and adds to it two more dimensions, stability and controllability.

Stability refers to the variability of the cause (i.e. whether the event is likely to be longstanding or happen again in the future). It was noted that within the domains of both the internal and external categories, some causes remained reasonably constant whereas others fluctuated (Weiner, 1985, 1986). For example, when explaining external causes of success in a test, the grade attained can be seen as being due to the school's policy on grading (a reasonably stable/external cause), or on an easy test (an unstable/external cause). Consequently, the stability dimension of causality was developed

(Hewstone, 1994). Thus, if a situation is stable, it is likely to happen again in the future (Weiner, 1979). Consequently, the stability dimension is thought to influence the person's expectancy of future outcomes.

Controllability refers to perceptions of the amount of voluntary control an individual has over an event (Hewstone, 1994; Weiner, 1985). This dimension is thought to influence emotions such as self-esteem (Antaki, 1982). Rosenbaum (1972, cited in Weiner 1986) first suggested the construct of controllability. Rosenbaum recognised that things such as mood, fatigue, and temporary effort are all classified as internal and unstable causes. Effort however, is subject to voluntary control whereas in most cases mood and fatigue are not. Similar distinctions were also found within events classified as internal and stable.

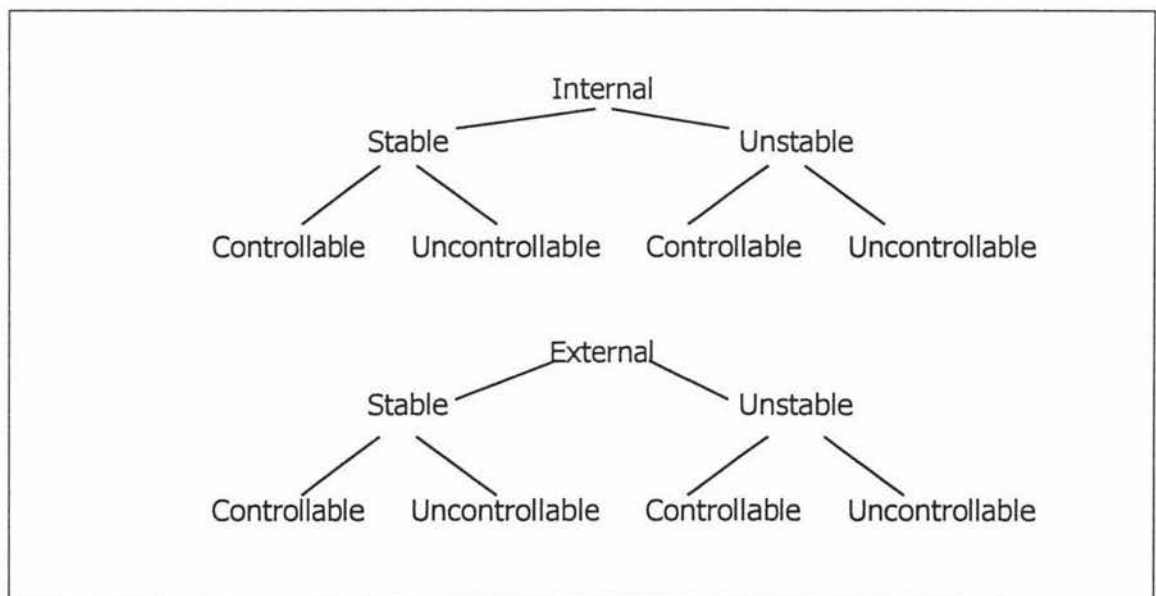


Figure 1. Structure of Causal Perceptions.

Combining the dimensions discussed, a three-tiered model was developed (see Figure 1) by Wiener and colleagues (Weiner, 1979, 1985, 1986). These dimensions are designed to predict important outcomes, such as emotions, behaviours, and motivation (Skinner, 1995). This typology gives the observer

the ability to create a more specific understanding of attributions. Such an understanding may also help the observer make predictions on the decisions that the individual makes in the future (Antaki, 1982).

2.3.1 Functions of Causal Attributions

As well as being interested in the formal features of attributions, Heider (1958) was also concerned with the functions that attributions have, and their effects on the feelings and future behaviours of the people involved (Antaki, 1982).

Since the late 1960's, there has been little interest in the functions that attributions have (Hewstone, 1994). However, in that time three main functions appear largely to have been agreed upon: control, self-presentation, and self-esteem (Forsyth, 1980; Tetlock and Levi, 1982).

The theory that individuals strive to achieve a degree of control over their environment has been dealt with in a number of psychological writings (see Wortman, 1976, and White, 1959). Forsyth (1980) subdivided this control function into two parts: explanation and prediction. He asserted that a lay person may use attributions as scientists use theories, to develop an explanation in order to achieve intellectual control over the event. "Without attributional explanations, any environmental event, any social behaviour would baffle the perceiver" (Forsyth, 1980, p.185). Developing an explanation for the event or behaviour helps the perceiver maintain the assumption that events in the world are non-random, understandable, and explainable. This allows the person to explain the reasons for past and present events as well as providing them the ability to predict future events. The person may do this to reassure themselves that an event could never happen to them (by distancing themselves from the actors in the event [explanation]), or that he or she would be able to anticipate and act to thwart an event's occurrence ([prediction] Hewstone, 1994; Wortman, 1976). Forsyth (1980) states that these two subdivisions are "neither synonymous nor entirely independent concepts... but

both explanation and prediction, whether taken singularly or in combination, do enhance feelings of control." (p.185).

The self-presentation function serves to influence the views that others have of the person, by explaining their actions using relevant causal attributions the goal here is to gain public approval and avoid embarrassment (Forsyth, 1980; Hewstone, 1994). This function is best illustrated by situations in which the person's actions produce negative or unexpected consequences (Forsyth, 1980). This is illustrated by Scott and Lyman's (1968) study of 'accounts'. They suggested that the distinction between accounts and explanations are that accounts are explanations people use when describing their action, or lack of action, and feel that they need to give a good self-presentation. Take the case of a child explaining to their teacher why they do not have their homework. The child can reduce the blame placed on them, by giving an account of the cause that is external and/or uncontrollable (e.g. "the dog ate it" or "I was sick"; Juvonen, 1996).

As well as controlling the views that others have of them, individuals also use causal attributions to help maintain, protect, or enhance their beliefs about themselves (self-esteem function). This is mostly seen when those beliefs are challenged in some way. This function is illustrated best in studies that compare causal attributions for success and failure (Hewstone, 1994). To serve a self-esteem function, an individual is more likely to attribute a success to an internal cause such as ability or skill, and a failure to an external cause such as bad luck or task difficulty (Hewstone, 1994). In their review on attributions and self-esteem, Pyszczynski & Greenberg (1987) concluded that there was evidence that self-esteem was affected by the attributions that people made about performance outcomes.

Reviews by Miller & Ross (1975) and Zuckerman (1979) of the research on attributions for success and failure in adults, support the theory that attributions for success are usually internal, whereas attributions for failure are

usually external. This has also been reported in the literature on children (e.g. Davis & Stephan, 1980; Lawes, 1983). By attributing the cause of an event to an external source, the control of that event is given away. On the other hand, assigning responsibility for the event to something internal maintains at least the perception of control.

2.3.2 Social Cognitive Model of Aggression

This review next turns to the attributions of aggressive children. Crick and Dodge (1994) developed a model to explain how aggressive children reason and respond to social experiences. This model is made up of six steps. These steps explain how a child interprets the actions of others, put these interpretations together with their experiences of the world, and then determines how they will react. At the first two steps, the child is (a) encoding and (b) interpreting the cues that they have received from the environment. For example, in a situation where a child has been pushed while drinking out of a fountain, at step one of the model, the child will take in this information (i.e. identifying that they have been pushed').

At step two, they will interpret the cues that they have encoded in the first step, recalling memories to help understand the situation and making causal inferences as to the intent of the action (Crick & Dodge, 1994). For example, the child may say to himself, "Last time I was pushed was when Fred was picking on me". It is at this step that the concept of hostile attribution bias is said to come into play. Hostile attribution bias is a propensity to attribute the intent of an action as hostile in ambiguous situations. In a review by Crick & Dodge (1994), the link between hostile attribution bias and children's social maladjustment is quite robust. This link was illustrated in a study by Dodge and Somberg (1987). They investigated the attributional biases of 355 third fourth and fifth grade boys in the United States. Of these boys, 65 were identified as either aggressive or non-aggressive. They found that those boys who were identified as aggressive were less likely to be accurate at interpreting the intent

of peers in hypothetical situations. These boys were significantly more likely than the non-aggressive boys to interpret the intent of the peer as hostile when the evidence of hostility was unclear. Such attributional style appears to be characteristic of reactively aggressive children (Crick & Dodge, 1994). Because of this, step two of this model is also likely to be the step at which reactive aggression is most salient.

At step three, after the child has interpreted the situation, they will re-evaluate their goals for this situation. In other words, the child may carry on with their pre-existing goal or outcome, or select a new goal or outcome for the situation (Crick & Dodge, 1994). In the water fountain example, the child's initial goal is to get a drink; if at step two, the child interprets the intent of the push as accidental they may carry on with this pre-existing goal and continue to get a drink. On the other hand, if the child interprets the action as hostile they may choose to re-evaluate the desired outcome of the situation. Instead of getting a drink, they may decide to take action against the other child or may seek to get away from the situation.

At step four in this model, the child is hypothesised to access from memory possible responses to the situation that may help them achieve this goal (e.g. 'Should I fight back or run away?'). It has been hypothesised that aggressive children have less of a repertoire of responses to call on than non-aggressive children do (Slaby & Guerra, 1988). This step is likely to be the most important in the differentiation between reactive and proactive aggression. Whereas a reactive aggressor's attribution bias has likely pre-empted processing by this step, a proactive aggressor is likely to be evaluating the positive consequences of a hostile response to a situation (Graham & Juvonen, 1998b).

Step five is concerned with decisions on what actions should be taken, by assessing the options in step four and choosing the one that they evaluate most positively. When making this decision, the child is hypothesised to take a number of factors into account, such as what they expect to gain from each

response (outcome expectations), their confidence in their ability to carry out each response (self-efficacy), and an evaluation of the appropriateness of the response (response evaluation). Not surprisingly, studies have shown that aggressive children are more likely to evaluate responses, such as aggression towards peers, as having tangible rewards and to reduce aggressive treatment by others (response evaluation). They also believe that it is easier to perform aggressive acts and harder to inhibit them, compared to non-aggressive children (self-efficacy). Aggressive children also appear more confident in their ability to perform aggressive acts than do non-aggressive children, accompanied by increased confidence that these acts will produce a positive outcome (Perry, Perry, & Rasmussen, 1986). At step six, the child enacts the chosen response. An aggressive child in the water fountain situation, once deciding that the action against them is aggressive, may have only a limited number of different responses to this situation. For example, if the child is confident that he can win a fight with the other child and feels that by doing this he will gain the respect of his peers, then it is likely that the child will act in an aggressive way towards the other child.

The next chapter of this study looks at "the other side of the coin", and reviews the literature on peer victimisation.

CHAPTER 3

PEER VICTIMISATION IN CHILDREN

Compared to peer aggression, victimisation and its effects have not been studied as extensively as peer aggression and bullying in the United States. Most of the research on the effects of peer victimisation has come from Europe (Graham & Juvonen, 1998a).

3.1 Definition and Prevalence

The prevalence of bullying incidents in schools has been reported anywhere from 10% to 50%. Three of the largest scale studies on victimisation in the last few years have been carried out in Norway (Olweus, 1991), Finland (Kumpulainen, et al., 1998), and England (Whitney & Smith, 1993). Olweus (1991) conducted a nation-wide study in Norway on the prevalence of bullying. He used a measure that he had developed which gave the 130,000 children in this study a definition of bullying and victimisation. His definition of victimisation has the same features as his definition of peer aggression, mentioned above. By his definition, children are considered victimised if they are repeatedly exposed to intentional negative actions by one or more peers considered more powerful. These actions can entail any of the variations of peer aggression mentioned above.

After being presented with the definition, the participants were asked how often they had experienced this type of behaviour in the preceding semester of the school year. From this study, Olweus (1991) estimated that 15% of students in Norwegian schools were involved in bullying at least 'now and then'. He broke this down to state that approximately 9% of students were victimised, 7% bullied others, and 2% were both bullying others and being victimised. Olweus (1991) also reported that victimisation declined as the school children got older. In primary school, an average of 11.6% of

participants reported being bullied, but in the junior high school sample this percentage had dropped to an average of 5.4%.

This trend was also seen in other studies looking at victimisation. Whitney and Smith (1993) investigated the extent of bullying in junior/middle and secondary schools in England. A sample of 6,754 students between the ages of 8 and 11 years old and 4,135 students between the ages of 11 and 16 years took part in the study. The pupils were administered a questionnaire similar to one developed by Olweus (1991). In their sample of younger students, they found that 27% were bullied 'sometimes' or more and 10% were being bullied 'once a week' or more. Similar to Olweus (1991), the figures dropped off in the secondary school sample, with 10% being bullied 'sometimes' or more and 4% bullied 'once a week' or more.

In Finland, the prevalence of bullying in 5,813 children who were born in 1981 (mean age when tested 8.4 years) was looked at by Kumpulainen et al. (1998). In this study, bullying was investigated using teacher, parent, and child responses to one question asking whether the child had been bullied by other children. Bullying was considered to be present if it was reported to be *certainly present* by any one of the raters, or it if was considered *occasionally present* by at least two of the three informants (parent, teacher, or child). According to these criteria it was discovered that 11.3% of the children were victims, and 7.6% of the children were both bullied and bullied others.

Other studies have reported figures similar to the ones in the three studies just reviewed. In America, Perry, Kusel, & Perry (1988) found that 10% of their participants could be classified as extreme victims. In the United Kingdom Smith and Levan (1995) found that 23% of their participants had been bullied that week. Boulton & Underwood (1992), also in the UK, reported that 21% of 11-12 year old children in their study identified themselves as being bullied. In a study of younger children (mean age 5.5 years), it was found that 20.5% of

them reported being victimised sometimes or a lot (Kochenderfer & Ladd, 1996).

In New Zealand, the Special Education Service (1994) reported that 25% of South Auckland school children regularly experience bullying. Maxwell and Carroll-Lind (1996, 1997) found that, in their study of 259 New Zealand school children from a major urban area, violence at the hands of other children was the most common direct experience of both physical and emotional abuse at school. They found that 49% of the children in their study reported being punched, kicked, beaten or hit by another child at school in the previous nine months, and 71% said they had had this experience at some time in the past. These children often reported being gang bashed by a group. Emotional violence was reported as being even more common than physical violence. Name calling and "telling tales" was reported as happening in the previous nine months by 68% and 59% of children respectively. Boys and girls were equally likely to report this. When asked what were the three worst things that ever happened to them, 25% of the participants reported emotional or physical bullying by other children to be among the worst.

As in the case of peer directed aggression it is difficult to determine an accurate prevalence of peer victimisation from the literature. The different methodologies and definitions of victimisation make it difficult to accurately assess. Despite this, there is an overwhelming sense from the literature reviewed that peer victimisation is not a minor problem.

The attention of this review is now turned to the major constructs examined in the present study. These include peer acceptance and rejection, and self-perceptions of loneliness, social anxiety, and self-worth. Finally, attributions of victimised children are looked at in the context of self-blame.

3.2 Consequences of Victimisation

Evidence strongly suggests that victimisation can disrupt the course of child development in very fundamental ways (Pynoos & Eth, 1985). It has been associated with psychological and physical symptomatology over the course of the life span of the child (Briere, 1992; Rigby, 1998, 1999; Terr, 1991). The experience of being harassed by one's peers is associated with a wide range of adjustment difficulties, and includes anxiety, depression, loneliness, low self-esteem (Olweus, 1978, 1992), rejection by other peers (Perry et al., 1988), truancy and other academic difficulties (Fried & Fried, 1996). Ambert (1994) did a qualitative study of university students looking at their sources of happiness and unhappiness in childhood. She found that peer interactions, many of these associated with victimisation, accounted for at least 30% of the recollections of major sources of unhappiness in childhood. This surpassed the recollections of parent interactions. Ambert (1994) suggests that peer abuse appears to have long-term effects on the victim.

3.2.1 Peer Rejection/Acceptance

The effects of victimisation by peers have been shown to partly depend on the reactions of the rest of the peer group of the victim (Hodges, Malone, & Perry, 1997). Hodges et al. (1997) found that, for children who had behavioural problems that put them at risk of victimisation, the likelihood of victimisation eventuating was greater if they lacked friends who could protect them. Friendship was also shown to mediate the relationship between behavioural problems and victimisation. Hodges, et al. (1999) found that, in their study of 393 fourth and fifth grade Canadian children, having a best friend inhibited behaviour changes usually associated with victimisation (e.g. internalising behaviours). Having a best friend also predicted a decrease in victimisation over the school year.

Unfortunately, there seems to be more rejection than acceptance of victims of peer aggression (Graham & Juvonen, 1998b). In a study by Perry, Willard, and Perry (1990), it was found that in preadolescents, there was little concern on the part of the children involved in the study that victimisation would cause the victim any pain or suffering. In a longitudinal study (Schwartz, Dodge, & Coie, 1993) looking at the emergence of peer victimisation in boys, it was found that as boys' reputations as victims developed, the victims received increasingly higher rates of negative responses from their peers. However, it was unclear whether these responses developed as a direct consequence of the victimisation or as a result of other factors. Whitney and Smith (1993) found that about a third of the children in their study said that they would help someone who was being victimised. Unfortunately, another fifth of the participants said they would join the bully. Therefore, not only are victims under threat of rejection by their peers, but there is also a likelihood that some peers will not come to their aid when they are being bullied, or may even add to the situation.

This lack of supportiveness by peers has been seen to increase with the age of the child (Rigby & Slee, 1991). In addition, Juvonen and Murdock (1997, cited in Graham and Juvonen, 1998b) found that the association between victimisation and peer rejection increased with age. Between third and fifth grade this association became stronger than the association between aggression and peer rejection. Therefore, by eighth grade victimised children were more rejected by their peers than aggressive children.

Graham and Juvonen (1998a) looked at victimisation in 418 sixth and seventh grade students in Los Angeles. They found the participants' reputation as victims affected their acceptance and rejection by peers. That is, the more that people considered the youth a victim the less accepted and more rejected the youth was. Graham and Juvonen (1998a) then examined peer rejection and acceptance when peer and self-perceptions of victims' status differed. To do this self- and peer- ratings of victimisation were combined and then divided

into four groups: True Victims, Paranoids, Deniers, and Non-victims. These groups reflected the combinations of peer- and self-perceptions (see Figure 2).

		Peer-Perceptions	
		Yes	No
Self-Perceptions	Yes	True Victim	Paranoid
	No	Denier	Non-victim

Figure 2. Peer Status groups

Graham and Juvonen (1998a) found that the two groups that were perceived by peers as victims (true victims and deniers) were more rejected and less accepted than the two groups that did not show peer-perceived victimisation (non-victims and paranoids). This finding was irrespective of self-perceptions of victimisation.

3.2.2 Self-perception

It seems as though self-perceptions of victimisation result in another set of psychological problems. Hodges and Perry (1999) found that self-reported victimisation had negative consequences for the children's personal and social adjustment. Their self-perceptions predicted an increase in internalising behaviours. Other problems associated with self-perceptions of victimisation include depression (Grotpeter & Crick, 1996; Slee, 1995), social anxiety (Olweus, 1993), loneliness (Boulton & Underwood, 1992; Olweus, 1993), low self-esteem (Olweus, 1993; Slee, 1995) and school avoidance (Boulton & Underwood, 1992; Kochenderfer & Ladd, 1996).

These problems are illustrated in a study by Graham and Juvonen (1998a) who found that the participants who perceived themselves as victims were also more lonely, socially anxious and lower in self-worth than participants' who did

not perceive themselves as victims. However, it was found that CSB tendencies partly mediated the relationship between self-perceived victimisation and adjustment problems (i.e. loneliness and social anxiety). Graham and Juvonen (1998a) then analysed whether the relationship between self-perceptions of victimisation and the adjustment problems and low self worth was still the same when peer and self-perceptions of victim status differed. The groups were separated out in the same manner as was detailed in the last section (see figure 2). The results of the analyses on these groups showed that both groups who perceived themselves as victims (true victims and paranoids) showed more problems with psychological adjustment (loneliness and social anxiety) than the groups who did not perceive themselves as victimised (non-victims and deniers). There were no significant differences in self-worth.

This finding is also shown in other studies looking at victimisation (Austin and Joseph 1996; Boney-McCoy & Finkelhor, 1995; Boulton & Underwood 1992;). Austin and Joseph (1996), in their study of 425 8-11 year old school children, found that higher scores on a self-report victimisation scale were associated with lower self-worth and social acceptance, and higher levels of self-reported depression.

Boulton & Underwood (1992) also demonstrated that being bullied has an effect on the child's self-esteem. Over 80% of the children in their study retrospectively reported feeling better about themselves prior to the onset of the bullying. Further, victims were significantly less likely to report being happy during playtimes, were less likely to report having many good friends in their class and were more likely to report feeling lonely at school and to report being alone at playtimes than non-victims. Boney-McCoy & Finkelhor (1995) found that self-perceptions of victimisation were related to PTSD symptoms and trouble with teachers.

This link between self-perceived victimisation and poor adjustment has also been found in kindergarten children in the United States. Kochenderfer & Ladd

(1996) investigated peer victimisation in young children (mean age 5.5 years). They found that children who reported being victimised in the first part of the year were significantly more lonely than those children who reported no victimisation. In the second half of the year, the children who reported being victimised were significantly lonelier, avoided school more, and liked school significantly less than the children who were not victimised. In retrospect, children who were only victimised in the second half of the year showed a significant increase in loneliness and a concomitant decrease in school liking as the school year progressed.

Although it is very clear that the perception of being victimised is related to adjustment problems and difficulties at school, due to the correlational nature of the data, it is not known whether victim status causes these difficulties, is a product of them, or a mixture of the two explanations. Hodges et al. (1999) found that internalising and externalising behaviours predicted an increase in victimisation over the school year. This in turn predicted an increase in the behaviours.

Graham and Juvonen (1998a) have suggested another theory to explain how victimisation is related to adjustment problems. This theory is that self-blame mediates the relationship between victimisation and adjustment problems. The next section reviews the literature on self-blame, focusing on self-blame and its relationship to victimisation.

3.3 Self-Blame

In the past, self-blame has been seen as detrimental, taken solely as a maladaptive psychological mechanism. It has been correlated with depression and slower rates of recovery from injury. Frey and Rogner's (1987) work on recovery from physical injury as a consequence of an accident showed that people who made more self-blaming attributions tended to stay in hospital longer than those people who made moderate or no self-blaming attributions.

Ratings of the healing process and subjective ratings of well-being were also adversely affected by self-blame.

This pattern of self-blame as maladaptive is also seen in studies looking at sexual assault and post-rape distress (Coffey et al., 1996; Frazier, 1991; Gold, 1989). Both Coffey et al. (1996) and Frazier (1991) looked at the relationship between self-blame, childhood sexual abuse experiences, and later adjustment. Both sets of researchers determined that self-blame mediated the relationship between sexual abuse as a child and later adjustment, suggesting that self-blame may be an ongoing factor that contributed to later life problems of child sexual abuse victims. Gold (1989) investigated incest victims' attributions for hypothetical negative events. He reported that incest victims were more likely than non-incest victims to attribute bad events to themselves. Within the incest group, women who generally have more self-blaming attributions reported more distress and lower self-esteem than those women who did not.

This view of self-blame as a maladaptive response fits with the attribution function focused on maintenance of self-esteem. That is, the people who do not blame themselves for the bad situation cope better because this allows them maintain their self-esteem. However, not all of the research in this area agrees with the view of self-blame as maladaptive.

Janoff-Bulman and Wortman (1977) interviewed 29 severe accident victims who were paralysed as the result of a chance accident, to find out their 'attributions of causality' for their accidents. Staff ratings of coping were also obtained. Janoff-Bulman and Wortman (1977) reported that the victims who considered themselves as the cause of the accident were the ones who received better coping ratings from the staff. Additional findings suggested that blaming others was a good indicator of poor coping. The victims who blamed others and saw the accident as avoidable were also rated by the staff as coping poorly.

Similar results were also seen in the case of the Three Mile Island (TMI) nuclear accident. One study looked at the effects of self-blame on the residents of TMI after the nuclear accident (Baum, Fleming, & Singer, 1983). TMI area residents that took some of the blame for the problems they experienced after the accident showed less stress than those residents who did not accept any blame (Baum et al., 1983). Although the major negative event was one that was not within their control, they apparently were able to gain back some security and control by believing that they could do something to lessen the negative after effects.

These examples illustrate a case for an alternative explanation of self-blame. This explanation looks at self-blame as a potentially adaptive psychological mechanism. This mechanism relates to the attributional function of control. If the individuals blame themselves for some aspect of the negative event, this is seen to give them some modicum of control to avoid, or change the consequences of that on similar events in the future. Medea & Thompson (1974) write that, in the case of rape, "If a woman can believe that somehow she got into the situation, if she can make herself responsible for it, then she's established some sort of control over the rape. It wasn't someone arbitrarily smashing into her life and wreaking havoc" (p.105).

Janoff-Bulman (1979) offers a research based explanation of the different effects of self-blame. She first investigated the self-blaming attributions of undergraduate university students. She found that general self-blaming attributions could be divided into two groups: behavioural and characterological self-blame. BSB focuses on past actions (or lack of action) that are thought to have caused the situation. These attributions are controllable and unstable. In contrast, CSB focuses on factors within the person's character that may have caused the situation. These are not controllable and, as they are related to the person's character are considered to be quite stable. Janoff-Bulman (1979) discovered that when self-blame was treated as a single entity, there was no difference between depressed and non-depressed students. By contrast, when

self-blame was broken down into characterological and BSB, depressed students showed significantly higher levels of CSB than did non-depressed students.

In the second part of her study, Janoff-Bulman (1979) looked at the attributions of female rape victims. She concluded that women who blame themselves behaviourally coped better. She theorised that this was because they felt that they could prevent the situation happening in the future through behaviour change. On the other hand, rape victims with characterological self-blaming attributions didn't cope as well because they believed that the assault was unavoidable -- for example, that something immutable in them caused the situation in the first place.

The distinction between the two types of self-blame has been seen in a number of studies (Hill & Zautra, 1989; Meyer & Taylor, 1986; Peterson et al., 1981). However, the view of CSB as maladaptive and BSB as adaptive has been both supported (Anderson et al., 1994; Mueller & Major, 1989; Peterson et al., 1981) and challenged (Frazier & Schauben, 1994; Meyer & Taylor, 1986; Sholomskas, Steil, & Plummer, 1990) in the literature.

In terms of support, Janoff-Bulman (1982), looked at the association between self-esteem, control and self-blame in 168 undergraduate female psychology students. She found that when participants were responding to hypothetical rape situations as victims, BSB was positively associated with higher levels of self-esteem, and CSB with lower levels. Peterson et al. (1981) found that CSB was associated with depressive symptoms in 87 female undergraduate students in their study. The same study did not find any associations between BSB and depression. Anderson et al. (1994) investigated the association between attribution style (characterological and behavioural self-blame and circumstantial blame) and loneliness and depression. Participants were 907 undergraduate students (443 females and 464 males) from United States Universities. They found that participants who attributed hypothetical failures

to their character were lonelier and more depressed than those participants who did not. In addition, they found that participants that attributed their perceived failure to behavioural causes were less lonely and depressed than those who did not.

In terms of challenges to the view of BSB as adaptive, Meyer & Taylor's (1986) study of 58 female rape victims concluded that BSB did not correlate with beneficial adjustment. In fact, what was found was that higher levels of both CSB and BSB were associated with poorer adjustment. Frazier & Schauben (1994) also found that characterological and behavioural self-blame were associated with poorer long-term adjustment in rape victims.

Compared to studies on adults, the characterological versus behavioural distinction has not been widely studied in children. Cole, Peeke, and Ingold (1996) also investigated depression levels and characterological versus behavioural attributions. In their sample of third (age 7-8 years), sixth (age 10-11 years) and ninth grade (age 13-14 years) children this association was looked at in a number of hypothetical situations. Among the ninth grade children, there was a positive correlation between CSB and depression. As in Peterson et al. (1981), BSB was found to have no significant correlation with depression for any of the grade levels.

Overall, it can be seen that CSB has been consistently associated with poor adjustment. However, the functions of BSB are less clear.

Chapter 4

THE PRESENT STUDY

4.1 Overview

The present study was a replication and extension of a study by Graham and Juvonen (1998a) looking at victimisation in school children. The present study replicated that of Graham and Juvonen (1998a) using a sample of students from New Zealand schools. Their study was concentrated on 418 sixth and seventh grade children (206 boys and 212 girls, mean age 12.4 years) in the United States of America. Graham and Juvonen (1998a) hypothesised that victims in their study on middle school children would use more characterological self-blaming attributions and that CSB would lead to more adjustment problems. They also hypothesised that victims would be less accepted and more rejected by their peers than non-victims. To test these hypotheses, they used regression analyses to determine to what extent the variables in the study were related to each other and to investigate what the nature of these relationships were (i.e. moderating and mediating effects). They found that self-perceptions of victimisation were related to adjustment difficulties such as loneliness, social anxiety and self-worth, and that this relationship was partially mediated by CSB. They also found that peer-perceptions of a child's levels of victimisation were related to rejection as rated by peers.

Graham and Juvonen (1998a) also investigated the relationships between victimisation and the various adjustment indexes (loneliness, anxiety, and self-worth), peer reactions (peer rejection/acceptance), and the self-blame (characterological and behavioural) in cases where self and peer views of victim status differed. To test these relationships, they classified participants into one of four groups. They labelled these groups 'true victims', 'paranoids', 'deniers', and 'non-victims' (see section 3.2.1 and figure 1 for further explanation of how this was done).

They found that when looking at CSB and the adjustment indexes, those participants who considered themselves victimised but did not have the reputation of being a victim (paranoids) were similar to 'true victims' in their ratings on these measures. Moreover, participants who did have the reputation of being a victim but did not agree with it (deniers) responded more like 'non-victims' on these measures. When looking at the peer reaction measures the opposite association was found. In this case 'paranoids' had similar levels of rejection to 'non-victims', and 'deniers' and 'true victims' were rated similarly by peers (Graham & Juvonen, 1998a).

The extension of the study was three fold. As well as looking at issues just discussed focusing on the victim, the present study also examined these issues as they pertain to the aggressor in bullying situations. To do this, a measure of bullying behaviour was added to the questionnaires of Graham and Juvonen (1998b) in order to investigate the relationships between the variables in the original study and bullying behaviour. The second part of the extension was designed to reduce the effects of method variance suggested in the original study. Teacher's ratings of participants' rejection/acceptance by peers were examined in addition to peers' ratings of others rejection/acceptance. The third aspect of the extension was to extend the age range of the children in the study. The present study looked at 10 to 17 year old participants whereas Graham and Juvonen (1998a) investigated a more restricted age range (i.e. mostly 12-year-old students). The specific goals of the research are outlined in the next section.

4.2 The Hypotheses

The first goal of the research was to attempt to replicate the findings of Graham and Juvonen (1998a). To do this, three hypotheses were investigated. These hypotheses are outlined below.

1. That self-blame would mediate the relationship between self-perceived victimisation and adjustment problems (loneliness and social anxiety).

For this hypothesis to be true the following components were necessary:

- 1a. Perceiving oneself as a victim is related to adjustment problems and low self-worth.
- 1b. CSB is related to adjustment problems and low self-worth.
- 1c. BSB is related to decreased adjustment problems and increased self-worth.
- 1d. Perceiving oneself as a victim is related to increased endorsement of CSB.
- 1e. Perceiving oneself as a victim is negatively related to endorsement of BSB.
2. Victims would be less accepted and more rejected compared to non-victims.
3. Loneliness, anxiety and low self-worth would be better predicted by intrapersonal factors such as self-perceptions victimisation, and self-blame, whereas peer-rejection and acceptance would be better predicted by interpersonal factors such as peers' and teachers' perceptions victimisation.

The last, more exploratory goal of the study was to look at how bullying behaviour is related to the variables under scrutiny.

Specifically:

1. How is bullying behaviour related to self-blame, adjustment problems, and self-worth?
2. How is bullying behaviour related to peer acceptance and rejection?

CHAPTER 5

METHOD

5.1 Participants

The research participants were comprised of 161 year 6 to year 12 students, from Taihape and Marlborough. The age of the participants ranged from 10 to 17 year with an average age of approximately 12 years old ($M=12.6$, $SD=1.18$). In terms of age groups, the majority ($n=120$) were between 10 and 13 years of age. In addition there were only five 17 year olds. There were 51 males and 110 females. To be included in the study these 161 students returned signed informed consent from both: a) a parent or guardian and, b) the student themselves (49.5% of eligible population of 358 students returned consent forms).

The ethnicity of the participants was determined by asking participants to indicate as many ethnic origins as applied to them from the categories given. Of the participants who answered this question ($n=160$), 57.6% ($n=92$) of the participants considered themselves solely European or Pakeha, and 26.9% ($n=43$) considered themselves either Māori ($n=14$), or a combination of Māori and Pakeha ($n=29$) or Māori and European ($n=22$). Of the remainder, .6% considered themselves to be a mixture of Pacific Islander ($n=1$) and Pakeha, .6% considered themselves to be Asian ($n=1$), 1.9% ($n=3$) considered themselves to be Indian ($n=2$) or a combination of Indian and New Zealander ($n=1$). The remaining 13.1% ($n=21$) of the participants classed themselves as other (specifying Kiwi [$n=8$], New Zealander [$n=7$], Chinese [$n=1$], Australian [$n=2$], Scottish [$n=1$], and Danish [$n=1$]).

Participants were asked to indicate who lived in their household. From those children who answered this question ($n=161$), 67.1% ($n=108$) reported that they lived in a household with both their parents and no other adults; 5% ($n=8$) had both their parents and extra family members in their home (e.g.

Grandparents or cousins). Fifteen and a half percent ($n=25$) of the children reported that they had only one parent living at home, 8.1% ($n=13$) said that they had a natural and stepparent. A further 4.3% ($n=7$) of the participants lived with neither of their parents (i.e., they lived with other relatives [$n=6$] or were in foster care [$n=1$]).

5.2 Measures

As this study was a replication and extension of a previous study, the choice of the majority of the measures was dictated by the need for direct comparison on the major indexes.

The extension portion of the study included a teacher rating to supplement the self and peer ratings of this and the previous study (Graham & Juvonen, 1998a). This was done to try and assess the issue of method variance that may have contributed to the findings in Graham and Juvonen (1998a). The other portion of the extension to Graham and Juvonen (1998a) was the addition of bullying factors to complement the assessment of victimisation factors. See Appendix A for a copy of the Participant Battery used in this study.

5.2.1 Peer Nomination

As in Graham and Juvonen (1998a), participants were given a roster with the names of all the children in their class/year on it. The names were arranged in alphabetical order and according to gender. The children were instructed to nominate up to three class members of either gender who fit each of seven behavioural descriptions. Two of these descriptions portrayed victimisation (Name three kids from your class... Q4. ...who get picked on or made fun of. and, Q5. ...who get put down or made fun of by others). Another two portrayed bullying behaviour (Name three kid from your class who... Q3. ...start fights or push other kids around. and, Q6. ...put other kids down or say mean things about others). Graham and Juvonen (1998a) adapted these items from

measures used in studies of both victimisation (Perry et al., 1988) and bullying behaviour in children (Graham, Hudley & Williams, 1992). Of the other three items, two were intended to measure peer acceptance and rejection. Respondents were asked to nominate up to three classmates that they "like to hang out with" and up to three that they do not "like to hang out with". As in Graham and Juvonen (1998a), the last descriptor was a distracter question asking the children to nominate the three "coolest kids" in their class, for this question self-nominations were allowed.

5.2.2 Self Nomination

To assess each participant's view of perceived victimisation and bullying behaviour, a measure adapted from an instrument developed by Austin and Joseph (1996) was used. This instrument was designed by Austin and Joseph (1996) to be embedded in the Harter Self-Perception Profile for Children (SPPC, Harter, 1985). The adapted measure consisted of eight forced choice items, half of which assessed victimisation while the other half assessed bullying behaviour. For each item, the child was given two statements from which they were asked to choose one as more indicative of him or her. For example, 'Some children do not hit and push other children about but other children do hit and push other children about.' The child then chose the statement most true for them and then indicated whether that statement was "really true for me" or "sort of true for me". Each item was then scored on a 4 point rating scale. This response format was designed to reduce social desirability effects.

The eight items of the measure were as follows: 1) Some kids do not laugh at other kids but other kids often laugh at other kids; 2) Some kids are not called bad names by other kids but other kids are often called bad names by other kids; 3) Some kids do not hit and push other kids about but other kids do hit and push other kids about; 4) Some kids often pick on other kids but other kids do not pick on other kids; 5) Some kids are often picked on by other kids but other kids are not picked on by other kids; 6) Some kids are not hit and pushed

around by other kids but other kids are often hit and pushed around by other kids; 7) Some kids are not laughed at by other kids but other kids are often laughed at by other kids; 8) Some kids do not call other kids bad names but other kids often call other kids bad names. The sub-scales had reasonable internal consistency for this study, with alpha coefficients of .66 for bullying-behaviour items, .75 for victimisation items. The internal consistency for victimisation items were similar to those found for Graham and Juvonen (1998a $\alpha=.77$). Of course, Graham and Juvonen (1998a) did not include the bullying sub-scale.

To assess perception of rejection or acceptance by peers, a ninth item was developed for the current research using the same forced choice format. This item stated, 'Some kids do not have a lot of kids that want to hang out with them but other kids do have a lot of kids that want to hang out with them'. This item was also designed to be embedded in the SPPC.

5.2.3 Attributional Scenarios

This instrument, designed by Graham and Juvonen (1998a), measured children's individual assessment of hypothetical situations depicting victimisation.

The instrument consisted of two scenarios that depicted the participant as the target of peer harassment at school. One scenario depicted the victim being humiliated in the changing rooms by classmates. The scenario stated "Imagine that you were in the changing room getting ready for P.E., when one kid steals your shorts. The class is about to start and you have nothing to wear. Other kids are laughing at you". The other portrayed the victim being physically threatened by peers observed smoking in the toilets. This scenario stated, "Imagine that you are in the toilets in your school, you see a couple of kids smoking. When they see you, one of them blocks the door so you can't get out, while the other presses you up against the wall".

The participants were asked to rate how much they agreed with 32 statements relating to their thoughts, feelings and behavioural reactions to each situation (64 total, see Appendix 1). The questions dealing with thoughts included attributions designed to capture characterological and behavioural self-blame and also external attributions to do with others and the school environment. The questions dealing with feelings and behaviour included responses cited by Weiner (Weiner, 1985, 1986) as being known to be associated with particular attributions (Graham & Juvonen, 1998a). The items were rated on a five point Likert scale indicating how strongly they thought/felt or how likely they were to do the things being asked about (1 = *definitely would not do/ think/ feel* and 5 = *definitely would do/ think/ feel*, [See Appendix A]).

In the current study, the attribution scenarios had alpha coefficients of .77 for the changing room scenario, and .78 for the toilet scenario. The validity of this measure was supported by Graham and Juvonen (1998a) who extracted 6 meaningful sub scales accounting for 49% of the variance in their sample of middle school children. These sub-scales denoted CSB (26.8% of the variance, eigenvalue=7.77) containing 8 items, Hostility (8% of the variance, eigenvalue=2.31) containing 3 items, Insecurity (5.5% of the variance, eigenvalue=1.60) containing 3 items, Threat from Others (2.9% of the variance, eigenvalue=.85) containing 2 items, BSB (2.7% of the variance, eigenvalue=.79) containing 3 items, and Passivity (1.7% of the variance, eigenvalue=.49) containing 3 items. Findings from this study also indicated that the self-blame factors related meaningfully, to various aspects of victimisation (Graham and Juvonen (1998a)).

5.2.4 Adjustment Indexes

Loneliness Index

Loneliness was assessed using a measure developed by Asher and Wheeler (1985). The 16-item measure was modified slightly by Graham and Juvonen (1998a) to make it appropriate to middle school children. The 16-items all focus on children's feelings of loneliness (e.g. I'm lonely at school), social adequacy (e.g. I don't get along with other kids in school), or estimation of peer status (e.g. I am well liked by kids in my class) (Asher and Wheeler 1985). See Appendix A for items in full.

Participants responded to the 16 items on a five point Likert scale indicating how true each item was for them (1 = *always true*, 5 = *not true at all*). The possible scores for the measure range from 16 to 80 with a higher score indicating more loneliness. The alpha coefficient for the measure in this study was .88. This is consistent with the internal consistency found in Graham and Juvonen (1998a; $\alpha=.81$).

Social Anxiety Index

Graham and Juvonen (1998a) adapted a 7-item measure from sub-scale of an instrument developed by Parkhurst and Asher (1992) to measure social concerns among middle school students. The particular sub-scale included items that asked of concerns about being humiliated and rejected (Parkhurst & Asher, 1992). Participants were asked how often they thought about seven statements "that school kids think about". The items were as follows: How often do you think... 1)...about whether other kids like you? 2)...that you'll say something dumb in front of other kids? 3)...that other kids think your weird? 4)...that you'll get teased or made fun of? 5)...about how much other kids dislike you? 6)...that other kids will think you're a wimp? and 7)...that someone will push you around?

Answers were recorded on a 5-point Likert scale (1 = *never* to 5 = *almost all the time*). The possible score range was between 7 and 35, where higher scores meant higher social anxiety in school. The alpha coefficient for the measure in this study was .79. This is the same alpha coefficient found in Graham and Juvonen (1998a; $\alpha=.79$).

Self-worth Index

Participants' self-worth was measured using the Global Self-Worth sub-scale of the Harter Self-Perception Profile for Children (SPPC, Harter, 1985). The sub-scale consisted of six forced choice items designed to tap global self-esteem or self-worth (Harter, 1985). In each item, the children were given a choice between two statements with one statement reflecting high self-worth and one reflecting low self worth, for example "Some kids are happy being the way they are" but "Other kids wish they were different". They were then asked to indicate whether the statement that they had chosen was "really true for me" or "sort of true for me". The response format creates a four-point scale for each item. The ratings for the six items were then averaged and a self-worth score between 1 and 4 was created for each child, with higher numbers indicating higher self-worth. This sub-scale of the SPPC was designed to ask the children directly what they think of themselves as people. This measure had an alpha coefficient here of .77, equal to that found in Graham and Juvonen (1998a).

Demographics

Participants indicated their gender, their ethnic group(s), and their age in years. They also indicated the make up of their family (see Participant section for description).

5.2.5 Teacher Rating of Bullying Behaviour/Victimisation

An adapted version of the peer nomination measure was given to teachers to assess their perceptions of bullying behaviour and victimisation in their pupils.

The item content dealing with bullying behaviour and victimisation was the same as the peer version. However, instead of asking the teacher to nominate only three people who fit the behavioural criteria, they were asked to nominate all the pupils in their class who fit those behavioural characteristics. The items were as follows: From the students in your class in this study, name as many as appropriate... 1) ...who start fights or push other kids around. 2) ...who get picked on or pushed around. 3)...who get put down or made fun of by others. and 4) ...who put other kids down or say mean things about others. See Appendix B for a copy of the teacher battery used in this study.

5.3 Procedure

Informed Consent and Data collection

Consent forms and information sheets were sent home with the students (See Appendices C & D for participant and parent information sheets and consent forms). The students were asked to bring back signed consent forms from themselves and their parents within the next week, parents were asked on their form to indicate whether they granted or did not grant permission for the child to participate in the research. As an extra incentive, participants were told that there would be a raffle held on the day of the data collection for all those students who returned their consent forms. All returned consent forms were entered in the raffle regardless of whether parental consent to participate was gained. A gift voucher to a music store in town was given as a prize for each class.

The Massey University Human Ethics Committee granted approval for the undertaking of this research. All the procedures and measures used in the participant consent and data collection were also approved by them.

Following receiving informed consent from participants, the data were collected in a classroom setting during school time in the third term of the academic year. The self-nomination form, attribution measure, and the three adjustment

indexes (social anxiety, loneliness and self-worth) were assembled as a single battery. The peer nomination measure was administered first and the response sheets were collected immediately after the instrument was completed. The self-report battery was then administered. The order in which the self-report measures were placed within the questionnaire was counterbalanced to assess for order effects.

The battery was administered to the class as a group by the researcher. Each questionnaire was read aloud by the researcher as the participants followed along and answered on their own sheets.

At the same time, the consent forms and information sheets were being given out to the pupils (two weeks before the data collection), the teacher rating scale was distributed to each of the teachers who had pupils participating in the study. These completed questionnaires were gathered from the teachers on the same day as the data collection took place.

The regular classroom teacher supervised the students not participating in the research in their regular classroom during the time that the questionnaires were being administered.

5.4 Overview of Data Analysis

The analyses of the results were done using Statistical Package for the Social Sciences (SPSS 8.0). The results were broken down into four parts described below. An alpha of .05 was chosen as the level of significance for this study.

1. Demographic Analysis and Analysis of Order Effects.

One-way Analyses of Variance (ANOVA) were done to assess for order effects in the administration of the participants' battery. An ANOVA was also done to examine differences between ethnic groups on all the major variables.

2. Factor Analysis of Attribution scenarios.

A factor analysis of participants' responses to the attribution questionnaire was carried out. This was done to test whether characterological and behavioural self-blame were identified as separate factors.

3. Relationships among the variables.

A correlational analysis was done that included all variables: the two self-blames scores, the three adjustment indexes (loneliness, social anxiety, and self-worth), the peer reaction measures (peer acceptance and rejection), the victimisation measures (peer-, teacher and self-perceived victimisation) and the bullying behaviour measures (peer-, teacher, and self-perceived bullying). Pearsons correlations were also done between these variables and the demographic variables (age and gender).

The next set of analyses was done to examine the relationships between victimisation and other main variables. Five hierarchical regressions were done to examine the main and interaction effects of self-perceived victimisation, peer-perceived victimisation, teacher-perceived victimisation and the two types of self-blame as predictors of (a) intrapersonal adjustment (loneliness, anxiety, and self-worth), and (b) peer reactions (acceptance and rejection).

The second set of regression analyses was done to examine the relationships between bullying behaviour and the other main variables. Again, five hierarchical regressions were done, but self-, peer-, and teacher-perceived victimisation were replaced with self-, peer-, and teacher-perceived bullying in the same regressions as described above.

In the final stage of the analyses, the hypothesis that CSB mediates the relationship between self-perceived victimisation and maladjustment was examined. The moderation-mediation multiple regression method outlined by Baron and Kenny (1986) was used.

4. Analysis by Victim and Bully Status.

ANOVAs were done on groups created from the bullying behaviour and victimisation scales by the two self-blame scales, the three adjustment indexes, and the two peer reaction measures.

CHAPTER 6

RESULTS

6.1 Demographic Analysis and Assessment of Order Effects

An assessment of the relationships between age and gender were done to determine what, if any, associations they had with the measures used in this study (see section 6.3.1 for results of this analysis). An Analysis of Variance (ANOVA) was done to assess for any order effects in the administration of the questionnaires. The results of this analysis showed that there were no significant differences for any of the questionnaires in the test battery ($p's > .05$). Analyses were also done to assess for differences in bullying behaviour and victimisation by ethnic group, no significant differences were found ($p's > .05$).

6.2 Factor analysis of Attribution Scenarios

A factor analysis was carried out on the youth's responses to the two attribution scenarios. This was done to determine whether characterological and behavioural self-blame would emerge as factors in the responses given by this sample of youth (see also Graham and Juvonen, 1998a).

Because the correlations between the youth's responses to the two hypothetical scenarios were similar to those reported in Graham and Juvonen (1998a. Between .3 and .6 for this study, between .4 and .7 for the previous study) the ratings were averaged across the two scenarios similar to the earlier study.

An exploratory factor analysis was done on the 32 items, using principal component extraction with oblique rotation. Two items with high communalities were removed after initial inspection of the factors. The main analysis was carried out on the remaining 30 items.

Table 1: Factor Loadings of the Item Ratings for Reaction to the Attribution Scenarios

Items	Factor loadings					
	Characterological Self-Blame	Factor 2: Hostility	Factor 3: Passivity	Factor 4: Avoidance	Threat from others	Behavioural Self-Blame
Kids do this to me because others also treat me this way.	.810	.016	-.159	-.104	.031	.102
Why me and not other kids?	.792	-.019	.011	-.094	-.143	.028
Happens to me more than to other kids.	.42	-.095	-.026	.096	-.137	.095
Kids do this to me because they know that I won't get them back.	.691	-.067	.190	-.032	.072	.068
Kids do this to me because they know that I won't cause trouble.	.673	-.155	.093	.102	.233	-.075
If I were a cooler kid I wouldn't get picked on.	.652	.099	.138	.209	.085	-.234
These kids want to beat me up.	.595	.194	.029	.098	.030	-.117
This will happen to me again.	.567	.072	.006	.086	.020	.227
Why do I always get into these situations?	.484	-.124	.036	-.025	.149	.267
I would be mad at the kids.	-.023	.840	-.046	.045	.022	.035
I would be furious.	.005	.819	-.049	-.053	.018	-.016
This is the last time these kids will do this to me - I'll see to that.	-.041	.405	-.347	-.925	.229	-.142
Do something to get even.	.047	.284	-.740	-.101	.047	.056
Have it out with the other kids right there and then.	-.013	.217	-.730	-.301	-.086	.086
Tell a teacher or another adult.	.090	.307	.618	-.027	-.048	-.090
I would be scared.	.354	.037	.612	-.162	-.064	.265
I wouldn't really care.	-.107	-.065	-.501	.364	-.263	.191
Try to walk away and keep quiet.	.093	.028	.099	.788	.049	-.075
Just ignore it.	.037	-.179	-.041	.566	.045	.048
I would feel there is nothing I could do about it.	.267	-.082	.031	.487	.059	.234
There are too many kids who want to be tough.	-.112	.079	.042	.136	.777	.097
These kinds of kids pick on everyone.	.117	-.039	-.052	-.109	.724	-.046
I shouldn't have been here at this time.	.143	-.034	-.216	.053	-.177	.720
This is my fault I shouldn't have been in the changingrooms/toilets.	.035	-.164	-.167	-.030	.324	.575
I would cry.	.171	-.040	.443	-.430	-.103	.497
I would feel humiliated and embarrassed.	-.049	.302	.307	.174	.186	.465
I should have known this was going to happen.	.354	.032	-.243	.114	-.033	.457
I should have been more careful.	.105	.227	.080	.319	.012	.418
Try to talk to the kids.	-.072	-.171	.105	-.050	.065	.027
Nobody is safe in this school anymore, there are too many kids like this.	.059	-.205	.053	.063	.160	-.347
Sometimes you just happen to be in the wrong place at the wrong time.	.122	.265	-.019	.055	.390	-.166

As in Graham and Juvonen (1998a), six conceptually meaningful factors were extracted accounting for 60.5% of the variance in the youth's ratings. The variables and their loadings on the factors are shown in Table 1. For ease of interpretation, the variables are grouped by factor and ordered by the size of their loading on each factor.

The first factor accounted for 24.1% of the variance (eigenvalue = 7.00). This factor consisted of nine items such as "This sort of thing is more likely to happen to me than to other kids", "I know this will happen to me again" and "If I were a cooler kid I wouldn't get picked on". As in Graham and Juvonen (1998a) the items in this factor denoted uncontrollability and limited stability. The factor was therefore labelled *Characterological Self-Blame* (see also Graham and Juvonen 1998a). The second factor consisted of three items accounting for 9.3% of the variance (eigenvalue = 2.71). This factor was labelled *Hostility* as it consisted of three items related to feeling angry and taking action to stop the situation happening again. Five items loaded onto the third factor which was labelled *Passivity/concern/reliance on adults* and accounted for 8% of the variance (eigenvalue = 2.33). The fourth factor, labelled *Avoidance/Helplessness*, accounted for 5.9% of the variance (eigenvalue = 1.71). The three items in this factor dealt with feeling helplessness and avoidance. Factor five was labelled *Threat From Others* and accounted for 4.7% of the variance (eigenvalue = 1.37). The sixth and last factor accounted for 4.3% of the variance (eigenvalue = 1.26). The six items in this factor dealt with personal controllability and limited stability. This factor was labelled *Behavioural Self-Blame*.

As in Graham and Juvonen (1998a), and given the focus of this study, for the remaining analyses only the two self-blame factors were used. The items that loaded .40 or more on these two factors were used to create scale scores for the factors. These scores were created by first standardising the relevant items and then calculating the average scores. Both scores had reasonable internal consistency: CSB (9 items, $\alpha=.88$) and BSB (6 items, $\alpha=.69$). This is similar to

the alpha levels reported in Graham and Juvonen (1998a; CSB= 8 items, $\alpha=.86$; BSB=3 items, $\alpha=.67$).¹

6.3 Relationships among the Variables

Next, the relationships between the self-blame scores, the three adjustment indexes (loneliness, self-worth and anxiety), the peer status measures (acceptance and rejection), and peer-, teacher-, and self-perceived victimisation and bullying were examined. The measures of peer and teacher perceived victimisation were created by summing the number of nominations that each participant received on the two questions that described victimisation on the respective measures (i.e. "Who gets picked on and pushed around?" and "Who get put down and made fun of?"). The teacher and the peer bullying variables were created by summing the two questions describing the aggressive behaviour (i.e. starts fights, puts others down) in the respective questionnaires. To determine self-perceived victimisation and bullying, each participant's ratings on the four victimisation and the four bullying behaviour items were averaged separately. Peer acceptance and rejection were assessed by summing the number of nominations each person received on the "like to hang out with" and "do not like to hang out with" questions. To adjust for the differing class sizes, all these scores were standardised within their respective classrooms.

6.3.1 Simple Pearsons Correlations

Table 2 shows the correlations among all the variables. The hypothesis that CSB may be related to the kind of anxiety and negative self-appraisals associated with perceiving oneself as a victim was tested. As in Graham and Juvonen (1998a), the correlations in Table 2 supported this hypothesis.

¹ Main analysis reported – subsequent sections reflect the CSB and BSB factors identified in the current factor analyses. However supplementary analyses using the factors containing only the items identified in Graham and Juvonen (1998a) were also carried out to facilitate direct comparison.

In terms of the demographic variables, age was significantly positively correlated with peer rejection ($r=.16$, $p>.05$) and negatively correlated with CSB ($r=-.28$, $p>.01$) and BSB ($r=-.35$, $p>.01$). Thus, peer-rejection was higher in the older participant, but endorsement of characterological self-blaming tendencies and behavioural self-blaming tendencies was lower in the older children. Gender was significantly correlated with all of the bullying behaviour measures (teacher-perceived bullying behaviour, $r=.25$, $p>.01$; peer-perceived bullying behaviour, $r=.26$, $p>.01$; self-perceived bullying behaviour, $r=.21$, $p>.01$), teacher-perceived victimisation ($r=.18$, $p>.05$) and self-worth ($r=.18$, $p>.05$). That is, teacher-, peer- and self-perceptions of bullying behaviour and teacher-perceptions of victimisation were higher for boys than for girls.

Table 2. Correlations between Variables

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. CSB														
2. BSB	.60 **													
3. Teach-vic	.14	.13												
4. Peer-vic	.20 **	.13	.55 **											
5. Self-vic	.27 **	.16 *	.30 **	.29 **										
6. Teach-bul	-.01	-.04	.19 *	.24 **	.14									
7. Peer-bul	.02	.06	.17 *	.22 **	.24 **	.48 **								
8. Self-bul	.09	.12	.11	.02	.43 **	.20 **	.26 **							
9. Loneliness	.43 **	.35 **	.18 *	.31 **	.37 **	-.01	.05	.13						
10. Anxiety	.50 **	.34 **	.12	.27 **	.47 **	.07	-.02	.06	.53 **					
11. Self-Worth	-.31 **	-.30 **	-.13	-.08	-.43 **	-.01	-.02	-.23 **	-.34 **	-.51 **				
12. Acceptance	-.18 *	-.09	-.24 **	-.29 **	-.04	-.01	-.01	-.04	-.28 **	-.13	.14			
13. Rejection	.13	.17 *	.35 **	.43 **	.24 **	.31 **	.43 **	.06	.28 **	.27 **	-.19 *	-.21 **		
14. Age	-.28 **	-.35 **	.01	.02	.02	.02	.03	.04	.09	.10	.03	-.01	-.16 *	
15. Gender	.03	-.10	.18 *	.12	.09	.25 **	.26 **	.21 **	-.02	-.07	.18 *	-.13	-.03	-.14

** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Note. CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame. Teach-vic = Teacher-perceived Victimisation; Peer-vic = Peer-perceived Victimisation; Self-vic = Self-perceived Victimisation. Teach-bul = Teacher-perceived bullying; Peer-bul = Peer-perceived bullying; Self-bul = Self-perceived bullying. Anxiety = Social Anxiety; Acceptance = Peer Acceptance; Rejection = Peer Rejection.

CSB was significantly correlated with the three adjustment indexes. It was positively correlated with both loneliness ($r=.43$, $p<.01$) and anxiety ($r=.50$, $p<.01$) and negatively correlated with self-worth ($r=-.31$, $p<.01$). The adjustment indexes were also correlated with each other as was expected, and consistent with the relationships found by Graham and Juvonen (1998a).

CSB was more strongly related to self-perceptions of victimisation ($r=.27$, $p<.01$) than to peer-perceptions ($r=.20$, $p<.01$). There were no significant correlations between CSB and teacher-perceived victimisation. The correlation between CSB and self-perceived victimisation supports hypothesis 1d (that perceiving oneself as a victim is related to increased endorsements of CSB). CSB was also not significantly correlated with any of the bullying measures (self-, peer-, or teacher-perceived bullying). The correlation between characterological and behavioural self-blame was relatively high showing that as in Graham and Juvonen (1998a) the two types of self-blame covary ($r=.60$, $p=.01$).

BSB was also significantly associated with the three adjustment indexes and self-perceived victimisation. Like CSB, BSB was positively associated with loneliness ($r=.35$, $p<.01$), anxiety ($r=.34$, $p<.01$), and self-perceived victimisation ($r=.16$, $p<.05$). It was also negatively associated with self-worth ($r=-.30$, $p<.01$), although none of the correlations were as strong in magnitude as those noted with CSB. The association between BSB and self-perceived victimisation does not support the hypothesis that perceiving oneself as a victim is negatively related to endorsement of BSB (hypothesis 1d).

Like CSB, BSB was not significantly correlated with teacher-perceived victimisation or any of the bullying behaviour measures. Unlike CSB, it was also not significantly correlated with peer-perceived victimisation.²

Neither attribution variable was strongly related to peer-acceptance or rejection, but unlike Graham and Juvonen (1998a), rejection was significantly related to all three adjustment indexes (loneliness, $r=.28$, $p<.01$; anxiety, $r=.27$, $p<.01$; self-worth, $r=-.19$, $p<.05$). This finding did not support the hypothesis that loneliness, anxiety and low self-worth will be better predicted

by intrapersonal factors such as self-perceived victimisation, and self-blame, whereas peer-rejection and acceptance will be better predicted by interpersonal factors such as peer- and teacher-perceived victimisation (hypothesis 2).

Peer-perceived bullying was significantly correlated with all three of the victimisation measures (self-perceived victimisation, $r=.24$, $p<.01$; peer-perceived victimisation, $r=.22$, $p<.01$; teacher-perceived victimisation, $r=.17$, $p<.01$). Self-perceived bullying was correlated significantly with self-perceived victimisation ($r=.43$, $p<.01$) but not teacher- or peer-perceived victimisation. The opposite was true for teacher-perceived bullying, which was significantly correlated with both teacher- and peer-perceived victimisation ($r=.19$, $p<.05$, & $r=.24$, $p<.01$, respectively), but not self-perceived victimisation.

Self-perceived bullying was also significantly and negatively correlated with self-worth ($r=-.23$, $p<.01$) This was the only significant correlation between the adjustment indexes and the bullying behaviour measures. On the other hand, self-perceived victimisation was significantly correlated with all of the adjustment indexes, positively with loneliness ($r=.37$, $p<.01$) and anxiety ($r=.47$, $p<.01$) and negatively with self-worth ($r=-.43$, $p<.01$). Peer-perceived victimisation was significantly correlated with both loneliness ($r=.31$, $p<.01$) and anxiety ($r=.27$, $p<.01$) but not with self-worth. Teacher-perceived victimisation was significantly correlated only with loneliness ($r=.18$, $p<.05$). All other correlations were non-significant.

6.3.2 Testing Moderation

Across bullying and victimisation the three adjustment indexes and the two peer reaction measures (peer rejection and peer acceptance) were treated as

² To compared directly with Graham and Juvonen (1998a) correlations were carried out with the CSB and BSB factors identified in that study. The pattern of correlations and magnitudes were similar.

the dependent variables in ten hierarchical regressions consisting of five steps each. Before each regression was carried out, an examination of the residuals was done to check for violations of assumptions. The results of these analyses showed that there were no major violations of the normality assumption or any outliers greater than three standard deviations in any of the regressions. An examination of the normal distribution of the variables showed no problematic skewness or kurtosis.

Victimisation Regressions

The first five regressions were done to determine the extent to which peer-, teacher-, and self-perceived victimisation were predictors of the intrapersonal adjustment (loneliness, anxiety, and self-worth) and peer reactions (acceptance and rejection).

Following the procedure used by Graham and Juvonen (1998a), at Step 1 in these five regressions, students gender, teacher- and peer-perceived bullying were entered as control variables as these measures may be related to both adjustment and peer reactions. At Step 2, self-, peer- and teacher-perceived victimisation was entered simultaneously. The interactions between these variables were entered in Step 3. BSB and CSB were entered in Step 4, and their interaction was entered in the last step. The order in which the main effects were entered reflect the idea that after controlling for gender and bullying behaviour the perceptions of victimisation come before self-blaming attributions (see Graham and Juvonen, 1998a).

In order to compare directly with Graham and Juvonen (1998a) the same regressions were also carried out using the CSB and BSB factors identified in that study. With one exception the pattern of results was the same. The exception was in predicting victims' self-worth (see p. 58).

The results of the first set of regression analyses with the three adjustment indexes are shown in the proceeding three tables. The results, showing beta values, R , R^2 , Adjusted R^2 , ΔR^2 and F for each step are displayed in each Table.

Table 3: Victimization Hierarchical Regression predicting loneliness

Predictors	Steps				
	1	2	3	4	5
Gender	-.025	-.043	-.019	-.012	-.018
Peer-bul	.082	-.022	-.029	-.022	-.020
Teach-bul	-.047	-.096	-.105	-.068	-.062
Self-vic		.326***	.315***	.243***	.244***
Peer-vic		.271**	.176	.172	.181
Teach-vic		-.034	-.065	-.075	-.082
Self x Peer			.098	.042	.040
Self x Teach			.088	.143	.145
Peer x Teach			.062	.003	.014
CSB				.229**	.205*
BSB				.154	.164
CSB x BSB					-.086
R	.073	.449	.478	.576	.582
Total R^2	.005	.210	.228	.332	.339
Adjusted R^2	-.014	.170	.182	.283	.285
R^2 change	.005	.196***	.027	.104***	.007
F	.278	6.469***	4.962***	6.740***	6.325***

* $p < .05$, ** $p < .01$, *** $p < .001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimization; Self-vic = Self-perceived Victimization; Teach-vic = Teacher-perceived Victimization. Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

The first analysis (shown in Table 3) was done using loneliness as the dependent variable. None of the variables entered in the first step were significantly predictive of loneliness. The ΔR^2 shows that this first step accounted for .5% of the variance, which was non-significant, $F(3,157) = .278$, $p > .05$.

The addition of the three victimization variables accounted for an additional 19.6% of the variance in loneliness. This ΔR^2 was highly significant, $F(3,154) = 12.598$, $p < .001$. The addition of the interaction terms for the three

victimisation variables contributed another 2.7% variance, but this step was non-significant, $F(3,151)=1.754$, $p>.05$. The CSB and BSB variables entered in the fourth step of the regression accounted for another 10.4% of the variance in loneliness. The change was also highly significant, $F(2,149)=11.609$, $p<.001$. The interaction terms for the self-blame variables were entered in the last step and these accounted for only another .7% of the variance. This change was not significant, $F(1,148)=1.506$, $p>.05$. The overall F for the regression was significant ($F(12,148)=6.325$, $p<.001$).

Together the 12 variables entered into the regression explained 28.5% of the variance in loneliness (adjusted $R^2=.285$). An examination of the beta values in the last step of Table 3 shows that self-perceived victimisation and CSB were the significant predictors of loneliness in this regression.

The second analysis (shown in Table 4) was done using anxiety as the dependent variable. The variables entered in the first step (gender, peer-perceived bullying, and teacher-perceived bullying) accounted for 1.5% of the variance, although this was non-significant, $F(3,157)=.779$, $p>.05$. The addition of the three victimisation variables accounted for an additional 27.6% of the variance in anxiety. This ΔR^2 was highly significant, $F(3,154)=19.973$, $p<.001$. The addition of the interaction terms for the three victimisation variables contributed another 2.2% variance, but this step was non-significant, $F(3,151)=1.754$, $p>.05$. The CSB and BSB variables entered in the fourth step of the regression accounting for another 12.7% of the variance in anxiety. The change was also highly significant, $F(2,149)=16.84$, $p<.001$. The interaction terms for the self-blame variables were entered in the last step and these accounted for only another .1% of the variance. This change was not significant, $F(1,148)=.154$, $p>.05$. The overall F was significant ($F(12,148)=9.694$, $p<.001$).

Table 4: Victimisation Hierarchical Regression predicting anxiety

Predictors	Steps				
	1	2	3	4	5
Gender	-.081	-.091	-.076	-.083	-.085
Peer-bul	-.052	-.179*	-.193*	-.171*	-.171*
Teach-bul	.117	.080	.075	.109	.111
Self-vic		.482***	.490***	.404***	.404***
Peer-vic		.224**	.126	.115	.117
Teach-vic		-.110	-.148	-.150	-.152
Self x Peer			-.035	-.106	-.107
Self x Teach			-.046	.014	.014
Peer x Teach			.223	.164	.167
CSB				.341***	.334***
BSB				.064	.068
CSB x BSB					-.025
<i>R</i>	.121	.539	.559	.663	.663
Total <i>R</i> ²	.015	.291	.313	.439	.440
Adjusted <i>R</i> ²	-.004	.263	.272	.398	.395
<i>R</i> ² change	.015	.276***	.022	.127***	.001
<i>F</i>	.779	10.517**	7.635***	10.621***	9.694***

* $p < .05$, ** $p < .01$, *** $p < .001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimisation; Self-vic = Self-perceived Victimisation; Teach-vic = Teacher-perceived Victimisation. Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

All together, the 12 variables entered into the regression explained 39.5% of the variance in anxiety (adjusted $R^2 = .395$). An examination of the beta values in the last step of Table 4 shows that peer-perceived bullying, self-perceived victimisation and CSB were the significant predictors of anxiety in this regression.

The third analysis (shown in Table 5) was done using self-worth as the dependent variable. The variables entered in the first step (gender, peer-perceived bullying, and teacher-perceived bullying) accounted for 3.7% of the variance, although this was non-significant, $F(3,157) = .1.983$, $p > .05$.

Table 5: Victimisation Hierarchical Regression predicting self-worth

Predictors	Steps				
	1	2	3	4	5
Gender	.199*	.219*	.212**	.205**	.202**
Peer-bul	-.056	.044	.054	.050	.051
Teach-bul	-.029	-.018	-.017	-.043	-.040
Self-vic		-.453***	-.467***	-.417***	-.417***
Peer-vic		.055	.117	.119	.124
Teach-vic		-.073	-.041	-.033	-.037
Self x Peer			.086	.124	.122
Self x Teach			.054	.015	.016
Peer x Teach			-.199	-.157	-.151
CSB				-.153	-.166
BSB				-.116	-.109
CSB x BSB					-.046
<i>R</i>	.191	.488	.509	.557	.559
Total <i>R</i> ²	.037	.238	.259	.311	.312
Adjusted <i>R</i> ²	.018	.208	.215	.260	.257
<i>R</i> ² change	.037	.202***	.021	.051**	.002
<i>F</i>	1.983	8.021***	5.876***	6.101***	5.604***

* $p < .05$, ** $p < .01$, *** $p < .001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimisation; Self-vic = Self-perceived Victimisation; Teach-vic = Teacher-perceived Victimisation. Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

The addition of the three victimisation variables accounted for an additional 20.2% of the variance in self-worth. This ΔR^2 was highly significant, $F(3,154)=13.582$, $p < .001$. The addition of the interaction terms for the three victimisation variables contributed another 2.1% variance, but this step was non-significant, $F(3,151)=1.447$, $p > .05$. The CSB and BSB variables entered in the fourth step of the regression accounting for another 5.1% of the variance in self-worth. The change was also significant, $F(2,149)=5.526$, $p < .01$. The interaction terms for the self-blame variables were entered in the last step and these accounted for only another .2% of the variance. This change was not significant, $F(1,148)=.409$, $p > .05$. The overall F was significant ($F(12,148)=5.604$, $p < .001$).

All in all the 12 variables entered into the regression explained 25.7% of the variance in self-worth (adjusted $R^2=.257$). An examination of the beta values in the last step of Table 5 shows that gender, and self-perceived victimisation were the significant predictors of self-worth in this regression. Thus, being a girl and having increased perceptions of being victimised were both related to decreased self-worth. Additionally, CSB was identified as a salient, but not quite significant predictor here ($\beta=-.17$, $p=.09$). Further, in additionally examining the role of the characterological and behavioural self-blaming factors identified in Graham and Juvonen (1998a), the CSB factor achieved significance ($\beta=-.19$, $p<.05$).

To summarise the first three regressions, self-perceived victimisation was a better predictor of all three adjustment indexes than was peer-perceived or teacher-perceived victimisation. This supports hypothesis 1a (that perceiving oneself as a victim is related to adjustment problems and low self-worth). CSB was found to be a significant predictor of loneliness and anxiety with a trend towards significance regarding self-worth. This generally supports the hypothesis 1b (that CSB is related to adjustment problems and low self-worth). BSB did not significantly predict loneliness, anxiety or low self-worth. This does not support hypothesis 1c (that BSB is related to decreased adjustment problems and increased self-worth). There were no significant interaction effects found for any of the adjustment indexes.

In the next two regressions, peer reactions were treated as the dependent variables and were regressed on the same set of predictor variables. These analyses are shown in Tables 6 and 7. These analyses show a quite different pattern of relations from those seen in the previous regressions.

The first of these two analyses (shown in Table 6) was done using peer-rejection as the dependent variable. The variables entered in the first step (gender, peer-perceived bullying, and teacher-perceived bullying) accounted

for 22.6% of the variance, This ΔR^2 was highly significant, $F(3,157)=15.299$, $p<.001$.

Table 6: Victimization Hierarchical Regression predicting peer-rejection

Predictors	Steps				
	1	2	3	4	5
Gender	-.173*	-.208**	-.190**	-.185**	-.188**
Peer-bul	.399***	.345***	.333***	.330***	.330***
Teach-bul	.160*	.098	.093	.100	.103
Self-vic		.039	.045	.036	.037
Peer-vic		.265**	.165	.166	.171
Teach-vic		.155	.112	.108	.104
Self x Peer			-.024	-.029	-.030
Self x Teach			.002	.010	.011
Peer x Teach			.197*	.187	.192
CSB				.008	-.003
BSB				.054	.061
CSB x BSB					-.041
R	.476	.602	.617	.620	.621
Total R²	.226	.363	.381	.384	.386
Adjusted R²	.211	.338	.344	.339	.336
R² change	.226***	.137***	.018	.003	.002
F	15.299***	14.619***	10.337***	8.460***	7.754***

* $p<.05$, ** $p<.01$, *** $p<.001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimization; Self-vic = Self-perceived Victimization; Teach-vic = Teacher-perceived Victimization. Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

The addition of the three victimisation variables accounted for an additional 13.7% of the variance in peer-rejection. This ΔR^2 was also highly significant, $F(3,154)=11.012$, $p<.001$. The addition of the interaction terms for the three victimisation variables contributed another 1.8% variance, but this step was non-significant, $F(3,151)=1.492$, $p>.05$. The CSB and BSB variables entered in the fourth step of the regression accounting for only .3% more variance in peer-rejection. The change was non-significant, $F(2,149)=.391$, $p>.05$. The interaction terms for the self-blame variables were entered in the last step and these accounted for only another .2% of the variance. This change was also

not significant, $F(1,148)=.374$, $p>.05$. The overall F for this regression was significant ($F(12,148)=7.754$, $p<.001$).

Together, the 12 variables explained 33.6% of the variance in peer-rejection (adjusted $R^2=.336$). An examination of the beta values in the last step of Table 6 shows that peer-perceived bullying and gender were the significant predictors of anxiety in this regression. Thus, higher levels of bullying behaviour as perceived by peers and being a female predicted more peer rejection.

The second of these analyses (shown in Table 7) used peer-acceptance as the dependent variable. The variables entered in the first step (gender, peer-perceived bullying, and teacher-perceived bullying) accounted for 1.8% of the variance. This ΔR^2 was non-significant, $F(3,157)=.985$, $p<.05$.

Table 7: Victimization Hierarchical Regression predicting peer-acceptance

Predictors	Steps				
	1	2	3	4	5
Gender	-.142	-.115	-.117	-.108	-.108
Peer-bul	.020	.048	.053	.040	.040
Teach-bul	.042	.065	.070	.061	.061
Self-vic		.056	.056	.088	.088
Peer-vic		-.251**	-.239*	-.232*	-.231*
Teach-vic		-.116	-.123	-.127	-.127
Self x Peer			-.018	.010	.010
Self x Teach			.071	.051	.051
Peer x Teach			-.037	-.021	-.019
CSB				-.149	-.152
BSB				.024	.025
CSB x BSB					-.010
R	.136	.333	.338	.361	.361
Total R^2	.018	.111	.114	.131	.131
Adjusted R^2	.000	.076	.062	.066	.060
R^2 change	.018	.093**	.003	.016	.000
F	.985	3.207**	2.169	2.034	1.854

* $p<.05$, ** $p<.01$, *** $p<.001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimization; Self-vic = Self-perceived Victimization; Teach-vic = Teacher-perceived Victimization. Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

The addition of the three victimisation variables accounted for an additional 9.3% of the variance in peer-acceptance. This ΔR^2 was significant, $F(3,154)=5.347$, $p<.01$. The addition of the interaction terms for the three victimisation variables contributed only another .3% variance, and this step was non-significant, $F(3,151)=.194$, $p>.05$. The CSB and BSB variables entered in the fourth step of the regression accounting for 1.6% more variance in peer-acceptance. This change was also non-significant, $F(2,149)=1.378$, $p>.05$. The interaction terms for the self-blame variables were entered in the last step and these accounted for less than .001% more variance in peer-acceptance. This change was not significant, $F(1,148)=.016$, $p>.05$. The overall F for this regression was also not significant, $F(12,149)=1.854$, $p>.05$.

In this regression the 12 variables explained only 6% of the variance in peer-acceptance (adjusted $R^2=.060$). An examination of the beta values in the last step of Table 7 shows that peer-perceived victimisation was the only significant predictor of peer-acceptance. That is, being less of a victim in peers' eyes related to being accepted by others. However, this must be interpreted with caution, as the overall regression was non-significant.

Bullying Behaviour Regressions

The second five regressions were done to determine the extent which peer-, teacher-, and self-perceived bullying were predictors of the intrapersonal adjustment (loneliness, anxiety, and self-worth) and peer reactions (acceptance and rejection).

At Step 1 in this set of regressions, students gender, teacher- and peer-perceived victimisation were entered as control variables. At Step 2, self-, peer- and teacher-perceived bullying was entered simultaneously. The interactions between these variables were entered in Step 3. BSB and CSB were entered in Step 4, and their interaction was entered in the last step. The order in which

the main effects are entered reflect the idea that perceptions of bullying behaviour come before self-blaming attributions.

The results of the second set of regression analyses with the three adjustment indexes are shown in the preceding three tables. The results, showing beta values, R , R^2 , Adjusted R^2 , ΔR^2 and F for each step are displayed in each Table.

The first of this set of analyses (shown in Table 8) was done using loneliness as the dependent variable. The addition of the three variables in the first step accounted for 10.2% of the variance in loneliness. The ΔR^2 for this step was highly significant, $F(3,157)=5.968$, $p<.001$.

Table 8: Bullying Behaviour Hierarchical Regression predicting loneliness

Predictors	Steps				
	1	2	3	4	5
Gender	-.057	-.065	-.064	-.040	-.048
Peer-vic	.309***	.339***	.334***	.263***	.279***
Teach-vic	.023	.011	.014	-.006	-.001
Self-bul		.151	.146	.092	.097
Peer-bul		.010	.036	.047	.053
Teach-bul		-.115	-.097	-.041	-.034
Self x Peer			-.058	-.044	-.044
Self x Teach			-.029	-.092	-.082
Peer x Teach			-.009	-.033	-.049
CSB				.307***	.287**
BSB				.133	.143
CSB x BSB					-.082
R	.320	.361	.370	.533	.539
Total R^2	.102	.131	.137	.284	.290
Adjusted R^2	.085	.097	.085	.231	.232
R^2 change	.102***	.028	.006	.147***	.006
F	5.968***	3.857***	2.654**	5.372***	5.039***

* $p<.05$, ** $p<.01$, *** $p<.001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimization; Teach-vic = Teacher-perceived Victimization. Self-bul = Self-perceived Bullying; Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

The addition of the three bullying behaviour variables accounted for an additional 2.8% of the variance in loneliness. This ΔR^2 was not significant, $F(3,154)=1.669$, $p>.05$. The addition of the interaction terms for the three bullying behaviour variables contributed another .6% variance, but this step was also non-significant, $F(3,151)=.348$, $p>.05$. The CSB and BSB variables entered in the fourth step of the regression accounted for another 14.7% of the variance in loneliness. The change was highly significant, $F(2,149)=15.332$, $p<.001$. The interaction terms for the self-blame variables were entered in the last step and these accounted for only another .6% of the variance. This change was not significant, $F(1,148)=1.267$, $p>.05$. The overall F for this regression was significant, $F(12,148)=5.038$, $p<.001$.

Together, the 12 variables entered into the regression explained 23.2% of the variance in loneliness (adjusted $R^2=.232$). An examination of the beta values in the last step of Table 8 shows that peer-perceived victimisation and CSB were the significant predictors of loneliness in this regression.

The second analysis (shown in Table 9) was done using anxiety as the dependent variable. The addition of the three variables in the first step accounted for 8.5% of the variance in anxiety. The ΔR^2 for this step was significant, $F(3,157)=4.855$, $p<.01$.

The addition of the three bullying behaviour variables accounted for an additional 1.5% of the variance in anxiety. This ΔR^2 was not significant, $F(3,154)=.863$, $p>.05$. The addition of the interaction terms for the three bullying behaviour variables contributed another 2.3% variance, but this step was also non-significant, $F(3,151)=1.326$, $p>.05$. The CSB and BSB variables entered in the fourth step of the regression accounted for another 20.7% of the variance in anxiety. The change was highly significant, $F(2,149)=23.009$, $p<.001$. The interaction terms for the self-blame variables were entered in the last step and these accounted for less than .001% more variance. As expected

this change was not significant, $F(1,148)=1.029$, $p>.05$. The overall F for this regression was significant ($F(12,148)=6.079$, $p<.001$).

Table 9: Bullying Behaviour Hierarchical Regression predicting anxiety

Predictors	Steps				
	1	2	3	4	5
Gender	-.099	-.106	-.115	-.101	-.102
Peer-vic	.297***	.310***	.274**	.186*	.189*
Teach-vic	-.021	-.031	-.022	-.039	-.040
Self-bul		.097	.090	.034	.034
Peer-bul		-.107	-.066	-.039	-.038
Teach-bul		.062	.063	.124	.125
Self x Peer			-.210	-.194*	-.194*
Self x Teach			.092	.030	.031
Peer x Teach			.034	-.011	-.014
CSB				.433***	.430***
BSB				.065	.066
CSB x BSB					-.012
R	.291	.316	.351	.574	.575
Total R²	.085	.100	.123	.330	.330
Adjusted R²	.067	.065	.071	.281	.276
R² change	.085**	.015	.023	.207***	.000
F	4.855**	2.853*	2.356*	6.673***	6.079***

* $p<.05$, ** $p<.01$, *** $p<.001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimization; Teach-vic = Teacher-perceived Victimization. Self-bul = Self-perceived Bullying; Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

Here, the 12 variables entered into the regression explained 27.6% of the variance in anxiety (adjusted $R^2=.276$). An examination of the beta values in the last step of Table 9 shows that peer-perceived victimisation and CSB were significant predictors of loneliness in this regression. The interaction between self- and peer-perceived bullying was also a significant predictor of anxiety in the last step of the regression. A schematic representation of this interaction is presented in Figure 3.

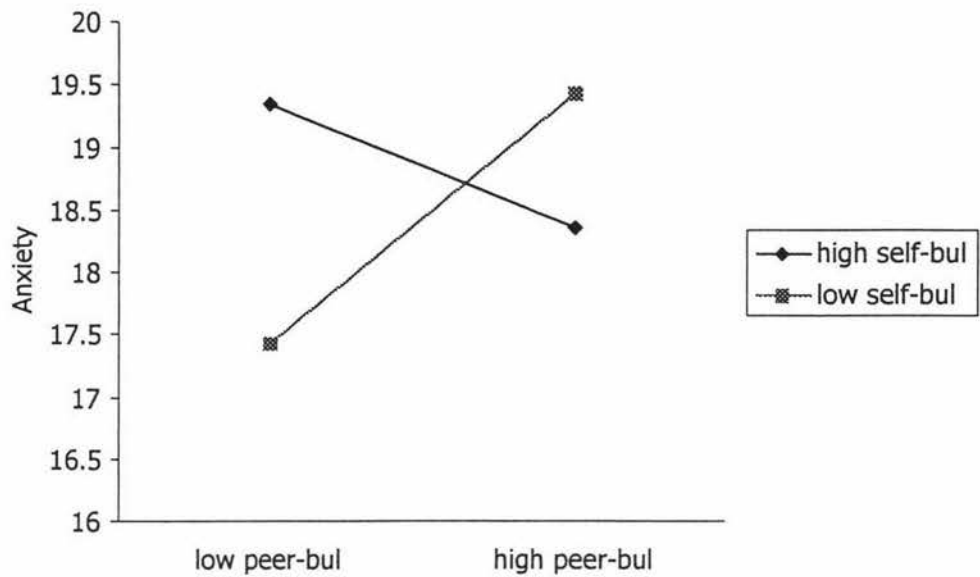


Figure 3: Schematic Representation of the Self-Perceived Bullying x Peer-Perceived Bullying Interaction in the Prediction of Anxiety.

Figure 3 was created by conducting a median split on the self- and peer-perceived bullying measures. This classification was done only for the purposes of illustration and the variables were treated as continuous in all statistical analyses.

This graph demonstrates that when there is a difference between the participants' self- and peer-perception of their bullying there is an increase in the anxiety of the participants. Those students who showed high peer-perceived bullying and low self-perceived bullying, or low peer-perceived bullying and high self-perceived bullying exhibited higher levels of anxiety than those students who demonstrated both high self- and high peer-perceived bullying, or low self- and low peer-perceived bullying. The discrepancy between the self- and the peer-perceived bullying measures acted as a moderator here.

The third analysis (shown in Table 10) was done using self-worth as the dependent variable. The addition of the three variables in the first step accounted for 6% of the variance in self-worth. The ΔR^2 for this step was significant, $F(3,157)=3.344, p<.05$.

Table 10: Bullying Behaviour Hierarchical Regression predicting self-worth

Predictors	Steps				
	1	2	3	4	5
Gender	.209**	.258**	.274***	.259***	.255***
Peer-vic	-.023	-.047	-.001	.059	.060
Teach-vic	-.158	-.128	-.138	-.124	-.127
Self-bul		-.275***	-.273***	-.236**	-.233**
Peer-bul		.012	-.053	-.063	-.060
Teach-bul		.014	.024	-.015	-.011
Self x Peer			.305**	.285**	.296**
Self x Teach			-.244*	-.200	-.195
Peer x Teach			.008	.028	.020
CSB				-.237*	-.248**
BSB				-.080	-.075
CSB x BSB					-.043
R	.245	.360	.424	.508	.509
Total R²	.060	.130	.180	.258	.259
Adjusted R²	.042	.096	.131	.203	.199
R² change	.060*	.070**	.050*	.078***	.002
F	3.344*	3.827***	3.674***	4.701***	4.317***

* $p < .05$, ** $p < .01$, *** $p < .001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimization; Teach-vic = Teacher-perceived Victimization. Self-bul = Self-perceived Bullying; Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

The addition of the three bullying behaviour variables accounted for an additional 7% of the variance in self-worth. This ΔR^2 was also significant, $F(3,154)=4.11$, $p < .01$. The addition of the interaction terms for the three bullying behaviour variables contributed another 5% variance, this step was significant, $F(3,151)=3.063$, $p < .05$. The CSB and BSB variables entered in the fourth step of the regression accounted for another 7.8% of the variance in self-worth. The change was highly significant, $F(2,149)=7.825$, $p < .001$. The interaction terms for the self-blame variables were entered in the last step and these accounted for only .2% more variance. This change was not significant, $F(1,148)=.333$, $p > .05$. The overall F for this regression was significant ($F(12,148)=4.317$, $p < .001$).

Together, the 12 variables entered into the regression explained 19.9% of the variance in self-worth (adjusted $R^2=.199$). An examination of the beta values in the last step of Table 10 shows that gender (i.e. being a male), low self-perceived bullying and low CSB were all significant predictors of increased self-worth.

The interaction between self- and peer-perceived bullying was also a significant predictor of self-worth. A schematic representation of this interaction is presented in Figure 4.

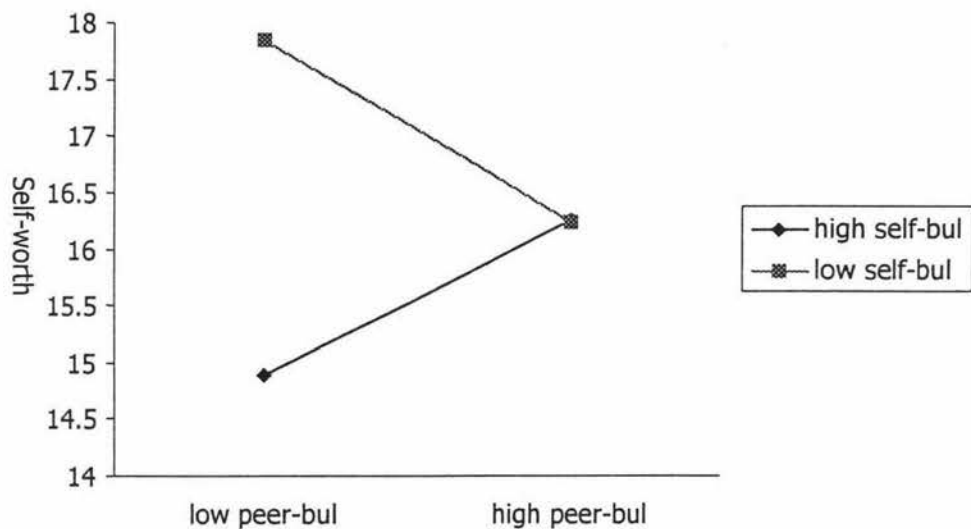


Figure 4: Schematic Representation of the Self-Perceived Bullying x Peer-Perceived Bullying Interaction in the Prediction of Self-worth.

As with Figure 3, a median split on the self- and peer-perceived bullying behaviour measures was conducted to create Figure 4. This classification was done only for the purposes of illustration and the variables were treated as continuous in all statistical analyses.

Figure 4 shows that self-perceived bullying moderates the effect of peer-perceived bullying on self-worth. As seen in Figure 4, in instances where peers perceive low levels of bullying behaviour in the youth, if the youth himself

perceives that they are aggressive, this has a deleterious impact on self-worth ratings.

In the next two regressions, peer reactions were treated as the dependent variables on the same set of predictor variables as above. These analyses are shown in Tables 11 and 12.

The first of these two regressions (shown in Table 11) was done using peer-rejection as the dependent variable. The addition of the three variables in the first step accounted for 21.7% of the variance in rejection. The ΔR^2 for this step was highly significant, $F(3,157)=14.466$, $p<.001$.

Table 11: Bullying Behaviour Hierarchical Regression predicting peer-rejection

Predictors	Steps				
	1	2	3	4	5
Gender	-.104	-.203**	-.214**	-.201**	-.202**
Peer-vic	.349***	.267***	.224**	.219**	.221**
Teach-vic	.178*	.166*	.172*	.165*	.164*
Self-bul		-.039	-.038	-.049	-.048
Peer-bul		.360***	.266***	.256***	.257***
Teach-bul		.100	.022	.031	.032
Self x Peer			-.007	-.005	-.005
Self x Teach			.078	.062	.063
Peer x Teach			.228*	.238*	.237*
CSB				-.019	-.021
BSB				.083	.084
CSB x BSB					-.009
R	.465	.602	.641	.644	.644
Total R²	.217	.363	.410	.415	.415
Adjusted R²	.202	.338	.375	.372	.368
R² change	.217***	.146***	.047**	.005	.000
F	14.466***	14.624***	11.672***	9.615***	8.757***

* $p<.05$, ** $p<.01$, *** $p<.001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimization; Teach-vic = Teacher-perceived Victimization. Self-bul = Self-perceived Bullying; Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

The addition of the three bullying behaviour variables accounted for an additional 14.6% of the variance in rejection. This ΔR^2 was also highly significant, $F(3,154)=11.797$, $p<.001$. The addition of the interaction terms for the three bullying behaviour variables contributed another 4.7% variance, this step was also significant, $F(3,151)=4.038$, $p<.01$. The CSB and BSB variables entered in the fourth step of the regression accounted for only another .5% of the variance in rejection. This change was not significant, $F(2,149)=.620$, $p>.05$. The interaction terms for the self-blame variables were entered in the last step and these accounted for less than .001% more of the variance. As expected this change was not significant, $F(1,148)=.018$, $p>.05$. The overall F for the regression was significant, $F(12,148)=8.757$, $p<.001$.

Here, the 12 variables entered into the regression explained 36.8% of the variance in peer-rejection (adjusted $R^2=.368$). An examination of the beta values in the last step of Table 11 shows that gender (i.e. being a female), teacher- and peer-perceived victimisation and peer-perceived bullying were all significant predictors of peer rejection in this regression.

The interaction between teacher- and peer-perceived bullying was also a significant predictor of peer-rejection. A schematic representation of this interaction is presented in Figure 5. The data set was treated in the same way as in the last two figures.

Figure 5 shows that teacher-perceived bullying moderates the effect of peer-perceived bullying on peer rejection. Under conditions of low peer-perceived bullying, students with high teacher-perceived bullying have similar levels of peer-rated rejection compared to those students with low teacher-perceived bullying (i.e. no moderating influence). Conversely, under conditions of high peer-perceived bullying, those students with high teacher-perceived bullying have significantly higher levels of peer-rated rejection compared to those with low levels of teacher-perceived bullying. Thus, if both peers and teachers

perceive bullying behaviour in a youth, the more likely it is that the youth is rejected by peers.

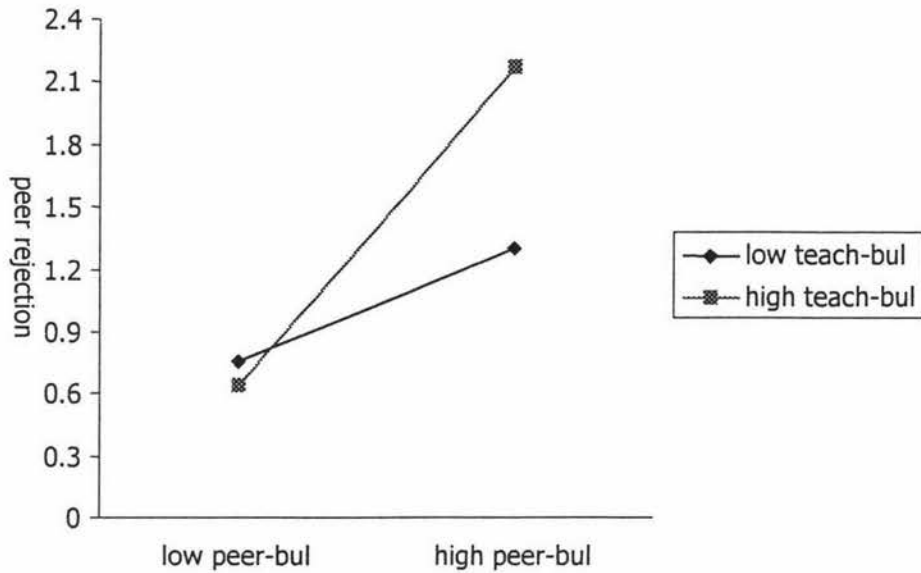


Figure 5: Schematic Representation of the Peer-Perceived Bullying x Teacher-Perceived Bullying Interaction in the Prediction of Peer Rejection.

The second of the peer reaction regressions (shown in Table 12) was done using peer-acceptance as the dependent variable. The addition of the three variables in the first step accounted for 9.9% of the variance in acceptance. The ΔR^2 for this step was highly significant, $F(3,157)=5.731$, $p<.001$. The addition of the three bullying behaviour variables accounted for an additional 1.1% of the variance in acceptance. This ΔR^2 was not significant, $F(3,154)=.625$, $p>.05$. The addition of the interaction terms for the three bullying behaviour variables contributed only another .3% variance, this step was also not significant, $F(3,151)=.167$, $p>.05$. The CSB and BSB variables entered in the fourth step of the regression accounted for another 1.1% of the variance in rejection. This change was not significant, $F(2,149)=.936$, $p>.05$. The interaction terms for the self-blame variables were entered in the last step and these accounted for less than .001% more variance. As expected this change was not significant, $F(1,148)=.020$, $p>.05$ and neither was the overall $F(12,148)=1.740$, $p>.05$.

Table 12: Bullying Behaviour Hierarchical Regression predicting peer-acceptance

Predictors	Steps				
	1	2	3	4	5
Gender	-.088	-.111	-.108	-.107	-.108
Peer-vic	-.220*	-.264**	-.236*	-.215*	-.213*
Teach-vic	-.101	-.102	-.104	-.102	-.103
Self-bul		-.036	-.036	-.026	-.026
Peer-bul		.066	.090	.079	.080
Teach-bul		.067	.087	.075	.076
Self x Peer			.001	-.003	-.003
Self x Teach			-.018	-.008	-.007
Peer x Teach			-.058	-.042	-.044
CSB				-.118	-.121
BSB				.016	.018
CSB x BSB					.011
R	.314	.331	.335	.351	.352
Total R²	.099	.110	.112	.123	.124
Adjusted R²	.081	.075	.060	.059	.053
R² change	.099***	.011	.003	.011	.000
F	5.731***	3.157**	2.126*	1.909*	1.740

* $p < .05$, ** $p < .01$, *** $p < .001$.

CSB = Characterological Self-Blame; BSB = Behavioural Self-Blame; Peer-vic = Peer-perceived Victimization; Teach-vic = Teacher-perceived Victimization. Self-bul = Self-perceived Bullying; Teach-bul = Teacher-perceived Bullying; Peer-bul = Peer-perceived Bullying.

All together, the 12 variables entered into the regression explained 5.3% of the variance in peer acceptance (adjusted $R^2 = .053$). An examination of the beta values in the last step of Table 12 showed that peer-perceived victimisation was the significant negative predictor of peer acceptance. However, this must be interpreted with caution, as the overall regression was non-significant.

6.3.3 Testing Mediation

In the final stage of the analysis of relationships between variables, the hypothesis that CSB mediates the association between self-perceived victimisation and maladjustment was tested, such that:

victimisation → characterological self-blame → adjustment problems

The respondents' loneliness and social anxiety scores were combined to create a single adjustment problems index. The CSB and self-perceived victimisation scales were the same as in prior analyses.

The procedure outlined by Baron and Kenny (1986) for testing mediation by multiple regression was followed. This procedure requires the completion of three regression equations. (1) a regression of the mediator(CSB) on the independent variable (I.V.; self-perceived victimisation), (2) a regression of the dependent variable (D.V.; adjustment problems) on the I.V., and (3) a regression of the D.V. on both the I.V. and the mediator. There is mediation if four conditions are met from these three regressions. In the first regression, the I.V. must be significantly associated with the hypothesised mediator. In the second regression, the I.V. must be significantly associated with the D.V. In the third regression, the hypothesised mediator must be significantly associated with the D.V., and the impact of the I.V. on the D.V. must be less after controlling for the hypothesised mediator (i.e. less than in the second regression).

The analysis showed that all four conditions for mediation were met. In the first analysis, self-perceived victimisation was a significant predictor of CSB, $\beta=.272$, $p<.001$). In the second analysis, the path from self-perceived victimisation to adjustment problems was significant ($\beta=.458$, $p<.001$). In the third regression, both CSB and self-perceived victimisation were significant predictors of the outcome measure ($\beta=.344$, $\beta=.418$ respectively, $p<.001$). Lastly, the impact of self-perceived victimisation on adjustment problems was less in the third equation ($\beta=.344$, $p<.001$; after controlling for CSB) than in the second equation ($\beta=.458$, $p<.001$; where CSB was not controlled for).³

³ The same finding (i.e. confirmation of mediation) was obtained using the CSB and BSB factors from Graham and Juvonen (1998a).

Analysis for the hypothesis that CSB mediates the relationship between self-perceived bullying and adjustment problems was not tested. The analysis in the previous section of this report showed that self-perceived bullying was not predictive of loneliness or of social anxiety (Tables 8 and 9) and it was also shown not to significantly correlated with CSB (Table 1) making an analysis of the mediation hypothesis redundant and unnecessary.

6.4 Analysis by Victim and Bully Status

In this study, as in Graham and Juvonen (1998a), it was noted that youth's self- and peer-perceptions were only moderately correlated ($r=.29$ for victimisation and $r=.26$ for bullying behaviour). This suggests that there was some discrepancy between how the youth viewed themselves and how others viewed them. In line with the analyses of Graham and Juvonen (1998a) examinations of the effects on the dependent variables (adjustment indexes and peer reaction measures) in sub-samples of participants for whom self- and peer views differed were done.

Four victim groups and four aggressor groups were identified, using the criteria adopted by Graham and Juvonen (1998a) and Perry et al. (1988). Youth who were at or above the 70th percentile on both self- and peer-ratings of victimisation were labelled as "true" victims. Of the sample 14.3% ($n=23$; 15 female and 8 males) were identified as being in this group. "Non-victims" ($n=48$; 37 females and 11 males) were youth whose peer- and self- scores both fell below the 50th percentile. The other two groups were made up of those youth whose peer- and self-ratings were discrepant. Some youth's (labelled paranoids in Graham and Juvonen, 1998a and Perry et al., 1988) tended to view themselves as victims, yet their peers did not see them in this way. "Paranoids" were identified as youth whose peer nominations were below the 50th percentile but whose self-ratings were at or above the 70th percentile ($n=19$; 13 females and 6 males). The last group identified were those youth who had a reputation among their peers as being victims (peer-nomination at

or above the 70th percentile) but did not see themselves in that light (self-nomination below the 50th percentile). These youth were labelled as “deniers” ($n=19$; 13 females and 6 males).

For the bullying behaviour groups, youth that were at or above the 70th percentile on both self- and peer-ratings of bully behaviour were labelled as “true” bullies. Of the sample, 24.6% ($n=34$; 18 female and 16 males) were identified as being in this group. “Non-bullies” ($n=53$; 44 females and 9 males) were youth whose peer- and self- scores both fell below the 50th percentile. Youth whose peer nominations were below the 50th percentile but whose self-ratings were at or above the 70th percentile were labelled “paranoids” ($n=37$; 25 females and 12 males). The last group, those youths whose peer-nomination were at or above the 70th percentile and self-nomination below the 50th percentile were labelled as “deniers” ($n=14$; 9 females and 5 males).

For ease of comparison to the study being replicated (Graham & Juvonen, 1998a), the labels used in the two previous studies were used in this analysis. The current author was not satisfied with the labels placed on these groups as they imply a negative view of the groups with discrepant self- and peer ratings, which may not necessarily be the case.

One-way analyses of variance (ANOVAs) by victim status (Victim Status Group 1) and bullying behaviour status (Bullying Status Group 1) were conducted on the two self-blame scales, three adjustment indexes, and the two peer reaction measures. The means on each variable as a function of the victim groups and the F tests for the main effects are shown in Table 13 (victim groups) and Table 14 (bullying groups).⁴

Table 13, shows that victims endorsed significantly more characterological self-blaming attributions than did non-victims. They also were lonelier, more

socially anxious, lower in self-worth and were more rejected than non-victims and less accepted. All these results are consistent with those found by Graham and Juvonen (1998a). That the groups did not differ on BSB is also consistent with the former study.

Table 13: Mean Differences on the Dependent Variables as a Function of Victim Status Group 1

Variable	Victims (<i>n</i> =23)	Paranoids (<i>n</i> =19)	Deniers (<i>n</i> =19)	Non-victims (<i>n</i> =48)	<i>F</i> (3,108)	<i>P</i>
Attribution						
Characterological self-blame	54.66a	49.84b	47.90b	48.16b	5.094	.002
Behavioural self-blame	51.95a	50.20a	48.87a	48.76a	1.456	.231
Adjustment Indexes						
Loneliness	40.70b	33.11a	30.11a	28.19a	9.017	.000
Social Anxiety	22.91b	20.84b	17.11a	15.83a	13.432	.000
Self-worth	13.91a	14.21a	18.16b	18.96b	13.164	.000
Peer Reactions						
Acceptance	1.04a	2.58b	1.16a	2.13b	5.112	.002
Rejection	2.52b	.68a	1.63b	.60a	9.078	.000

Note. Row means with different subscripts are significantly different at $p < .05$ using Duncan's Multiple Range Test.

In terms of paranoids and deniers, it was found that for social anxiety and self-worth, paranoids did not differ significantly from victims. For CSB and the adjustment indexes, deniers and non-victims did not differ. This shows that in most cases, the two groups that perceived themselves as victims reported similar levels of intrapersonal adjustment, whereas the two groups who did not view themselves as victims generally showed better adjustment. In all cases, victims and paranoids had higher levels of adjustment problems (high loneliness and anxiety, and low self-worth) and endorsed higher levels of self-blaming attributions; however, not all differences reached significance (see Table 13).

For peer-acceptance and rejection, Table 13 shows that deniers did not differ significantly from victims, and paranoids did not significantly differ from non-victims. That is, the two groups perceived by peers as victims tended to be

⁴ The BSB and CSB factors from Graham and Juvonen (1998a) were additionally analysed here. In all cases the pattern of results were the same as the ones found using the presents studies factors.

more rejected and less accepted, while the two groups who were not perceived in that way were significantly more accepted and less rejected by their peers. These results support the results found by Graham and Juvonen (1998a).

Table 14: Mean Differences on the Dependent Variables as a Function of Bullying Status
Group 1.

Variable	Bullies (<i>n</i> =34)	Paranoids (<i>n</i> =37)	Deniers (<i>n</i> =14)	Non-Bullies (<i>n</i> =53)	<i>F</i> (3,137)	<i>P</i>
Attribution						
Characterological self-blame	49.97a	51.09a	51.90a	49.49a	.630	.597
Behavioural self-blame	51.23a	49.57a	52.51a	48.95a	1.765	.157
Adjustment Indexes						
Loneliness	32.53a	33.59a	32.86a	30.85a	.555	.646
Social Anxiety	18.03a	19.35a	20.64a	17.74a	1.579	.197
Self-worth	16.38a,b	14.76a	16.21a,b	17.77b	3.676	.014
Peer Reactions						
Acceptance	1.59a	1.59a	1.86a	1.72a	.139	.937
Rejection	1.68a,b	.81a	2.14b	.89a	3.525	.017

Note. Row means with different subscripts are significantly different at $p < .05$ using Duncan's Multiple Range Test.

In terms of bullying status, Table 14 shows that they bullies and non-bullies not differ significantly on the attribution measures, the adjustment indexes or the peer reaction measures. Looking at the rest of the findings here it was determined that the only significant differences were on the self-worth and peer rejection variables. For self-worth, paranoids had a significantly, lower mean score compared to non-bullies. That is, for self-worth the only significant difference that was found was between those participants that peers saw as not aggressive. Those participants who saw themselves as aggressive (paranoids) had significantly less self-worth than those who did not see themselves as aggressive (non-bullies). For peer-rejection, deniers were significantly more rejected compared to paranoids and non-bullies. For peer rejection, those participants that peers saw as aggressive, but did not consider themselves aggressive (deniers) were significantly more rejected than participants that peers considered not aggressive, no matter what their view was of themselves (paranoids and non-bullies). All other comparisons were non-significant (see Table 14).

In Graham and Juvonen (1998a), one of the limitations that they noted was that the findings of the study might have been confounded by shared method variance. In the ANOVAs that assessed victim status, the peer-victimisation and peer reaction measures were both based on peer reports, whereas self-victimisation and the adjustment indexes were based on self-reports. To control for method variance, another set of ANOVAs was done on the same variables as in the previous two. In these ANOVAs, the peer nominations of victimisation and bullying behaviour were replaced with teacher nominations to create new victim and aggressor status measure categories (Victim Status Group 2 and Aggressor Status Group 2).

Table 15: Mean Differences on the Dependent Variables as a Function of Victim Status Group 2

Variable	Victims (<i>n</i> =25)	Paranoids (<i>n</i> =13)	Deniers (<i>n</i> =24)	Non-victims (<i>n</i> =42)	<i>F</i> (3,103)	<i>P</i>
Attribution						
Characterological self-blame	53.01 _{a,b}	53.65 _b	49.06 _a	49.63 _{a,b}	2.575	.058
Behavioural self-blame	51.81 _{a,b}	53.96 _b	49.22 _a	49.97 _a	2.164	.097
Adjustment Indexes						
Loneliness	40.32 _b	30.69 _a	28.46 _a	29.17 _a	9.109	.000
Social Anxiety	22.00 _b	22.85 _b	16.63 _a	16.07 _a	12.462	.000
Self-worth	13.84 _a	14.46 _a	17.92 _b	18.83 _b	11.089	.000
Peer Reactions						
Acceptance	1.32 _a	2.38 _b	1.71 _{a,b}	1.98 _{a,b}	1.558	.204
Rejection	2.20 _b	1.23 _{a,b}	1.08 _a	.67 _a	4.578	.005

Note. Row means with different subscripts are significantly different at $p < .05$ using Duncan's Multiple Range Test.

The same criteria as above were used for victim groups in this analysis. This gave 25 "true" victims (16 females and 9 males), 42 non-victims (31 females and 11 males), 13 paranoids (8 females and 5 males), and 24 deniers (14 females and 10 males). The means on each variable as a function of the victim groups and the *F* tests for the main effects are shown in Table 15.

In comparing the results for victims and non-victims, Table 15 shows that victims were lonelier, more socially anxious, lower in self-worth and more rejected compared to non-victims. These results were consistent with those

found in the previous analysis. That the two groups did not differ on BSB was also consistent with the previous analysis. However, in the previous set of analyses additional comparisons were significant (i.e. CSB and peer acceptance).

In terms of results for paranoids and deniers, it was found that for social anxiety and self-worth, paranoids did not differ significantly from victims, and for all three of the adjustment indexes deniers and non-victims did not differ. This shows that in most cases the two groups that perceived themselves as victims still reported similar levels of intrapersonal adjustment, whereas the two groups who did not view themselves as victims still showed relatively better adjustment even when the peer nominations were replaced with teacher-nominations. In all cases, victims and paranoids still had higher levels of adjustment problems (high loneliness and anxiety, and low self-worth) and endorsed higher levels of self-blaming attributions. However in some cases these findings were not significant. Thus, findings here reflected the same general pattern but were not quite as robust with the teacher nominations in place.

In terms of peer-acceptance and rejection, Table 15 shows that when looking at acceptance, only victims and paranoids differed significantly. In terms of rejection victims differed significantly from deniers and non-victims. This is a different pattern than seen in the previous analyses on these two variables, although victims although victims differing from non-victims in terms of rejection is consistent.

For the second bullying behaviour ANOVA (Table 16), the same criteria as above were used for the bullying behaviour groups. This gave 29 "true" bullies (11 females and 18 males), 43 non-bullies (33 females and 10 males), 39 paranoids (27 females and 12 males), and 13 deniers (8 females and 5 males). There were no significant differences found on any of the variables for this set of bullying behaviour status groups (see Table 16).

Table 16: Mean Differences on the Dependent Variables as a Function of Bullying Status
Group 2.

Variable	Bullies (<i>n</i> =29)	Paranoids (<i>n</i> =39)	Deniers (<i>n</i> =13)	Non-Bullies (<i>n</i> =43)	<i>F</i> (3,123)	<i>P</i>
Attribution						
Characterological self-blame	51.25a	50.37a	50.49a	50.70a	.096	.962
Behavioural self-blame	52.51a	50.51a	50.02a	50.00a	1.084	.358
Adjustment Indexes						
Loneliness	32.52a	33.69a	33.92a	31.00a	.526	.665
Social Anxiety	18.55a	19.18a	20.69a	17.77a	1.067	.366
Self-worth	16.07a	15.21a	17.13a	17.47a	2.098	.104
Peer Reactions						
Acceptance	1.59a	1.56a	1..62a	1.70a	.059	.981
Rejection	1.62a	1.08a	1.92a	.98a	1.501	.218

Note. Row means with different subscripts are significantly different at $p < .05$ using Duncan's Multiple Range Test.

CHAPTER 7

DISCUSSION

7.1 Summary of Major Findings

The study being replicated here (Graham & Juvonen, 1998a) sought to investigate two goals. The first goal was to look at victimised children's views regarding the cause of peer harassment; this goal focused on characterological versus behavioural self-blame. This study hypothesised that: a) victims would endorse more characterological self-blaming attributions than non-victims, and that CSB would be related to more loneliness, social anxiety and negative self-views, and b) victimised children would be more rejected and less accepted by their peers than non-victims. The second more exploratory goal was to look at the same variables as above in respondents where self and peer-perceptions of victim status differed. To investigate this goal, Graham and Juvonen (1998a) hypothesised that self-perceptions and peer-perceptions of victim status might be related to different repercussions for the victim.

As in Graham and Juvonen (1998a), factor analyses were carried out on the attribution scenarios and results identified characterological and behavioural self-blame as separate factors. The specific items that made up CSB and BSB for the present study differed slightly from those in the original study (CSB contained an additional item, BSB contained an additional three items). In addition to the analysis reported below on the factors identified in the present study, analyses were also run using the CSB and BSB variables that were identified in Graham and Juvonen (1998a). The results of these analyses were very similar to those reported below with the exception of the regression analysis of self-worth. Using Graham and Juvonen's (1998a) CSB variable in the self-worth regression it was found that CSB was a significant predictor of self-worth.

Looking at the overall findings of the present study, children who perceived themselves as victims reported adjustment difficulties, (i.e. loneliness and social anxiety) and low self-worth. This replicates the findings of Graham and Juvonen (1998a). Additionally, the relationship between some of these difficulties (loneliness and social anxiety) and self-perceived victimisation was partially mediated by characterological self-blaming attributions (see also Graham and Juvonen, 1998a). Also in line with Graham and Juvonen (1998a), attributions relating to blaming one's behaviour on more situational factors (behavioural self-blame) were found to be unrelated to any of the adjustment difficulties in the regression analyses, and were not significantly more endorsed by victims than non-victims in the analyses of variance. These results strengthen the argument made by Graham and Juvonen (1998a) "that it would be too simplistic to conclude that victimised early adolescents blame themselves for their victim status, or that self-blame always has a negative consequence. Rather, specific kinds of self-blaming tendencies are particularly maladaptive, whereas others may be relatively benign" (p. 596).

In the original study, Graham and Juvonen (1998a) also found that peer-perceptions of victimisation significantly predicted rejection and acceptance by peers, and that these factors were not predicted by self-perceptions. The results of the present study are not so clear cut. In the victimisation regression analyses, self-perceived victimisation did not predict peer regression or acceptance, whereas peer-perceived victimisation was a significant predictor of acceptance by peers but not of peer rejection. Thus, this pattern of findings partially replicates that of Graham and Juvonen (1998a). The results of the analyses of variance did demonstrate additional support for Graham and Juvonen's (1998a) findings. The analyses of variance showed that the participants in the victim group were rated as significantly less accepted and significantly more rejected than were participants in the non-victim group.

In terms of the role of interpersonal versus intrapersonal factors, Graham and Juvonen (1998a) found that self-perceptions of victim status were more related

to loneliness, social anxiety, and low self-worth whereas peer-perceptions were more related to rejection and acceptance. This general pattern was replicated in the current study.

In addition, the second aspect of the present study was to extend the previous investigation by Graham and Juvonen (1998a). This was done in three ways. Firstly with regard to participants, the present study used a sample of New Zealand school children ranging in age from 10 to 17 years old (mean age 12 years). This contrasts with a more restricted age range in Graham and Juvonen's (1998a) sample of American middle school children (mean age of 12 years). Secondly with regard to bullying, participants' bullying behaviour and its relationship to the other variables in the study was examined. Thirdly in regard to teacher ratings, teachers were asked to identify victimisation and bullying behaviour in participants to help combat method variance.

Using the extended age range, it was found that there were lower levels of CSB, BSB and peer rejection as a function of increasing age.

Looking next at the bullying aspect of the extension, there were two questions that the present study investigated: a) how does bullying behaviour relate to rejection and acceptance by peers, and b) how does bullying behaviour relate to the self-blame and the adjustment indexes (loneliness, social anxiety, and self-worth)? Here, the present study found that peer-perceptions of bullying behaviour predicted peer-rejection. Additionally, this relationship was moderated by an additional factor. That is, the relationship between peer-perceptions of bullying behaviour and peer rejection was moderated by teachers' perceptions of the child's bullying behaviour. Thus, participants whose peers perceived them as highly aggressive were rejected more if their teachers also perceived them to have high levels of bullying behaviour. Further, if peers perceived respondents to be non-aggressive, teachers' perceptions of the children's bullying behaviour had little effect on rejection by their peers.

In terms of the relationship between self-perceptions of bullying behaviour and the adjustment indexes, regression analyses showed that self-perceptions of bullying behaviour predicted self-worth. Additionally, this relationship was moderated by peer-perceptions of bullying behaviour. That is, participants who perceived themselves as having low levels of bullying behaviour reported higher levels of self-worth if peers also perceived them to be that way. For those participants' who saw themselves as having high levels of bullying behaviour, peer-perceptions had little effect on their self-worth. The relationship between bullying behaviour and social anxiety was moderated by discrepancies between self- and peer-perceptions of bullying behaviour. It was shown that where there was a discrepancy between self- and peer-perceptions of bullying behaviour, respondents indicated higher levels of social anxiety.

Another aspect of the extension was to combat shared method variance. Peers' perceptions of victim status were supplemented with teachers' perceptions. In the regression analyses, teachers' perceptions did not predict any factors except for the case already discussed where teachers' perceptions of bullying behaviour acted as a moderator of rejection scores. In the analyses of variance, the results comparing victims to non-victims when substituting teacher for peer-perceptions were similar in some respects in terms of adjustment indexes and peer reaction measures. That is, victims were significantly lonelier, more socially anxious, had lower self-worth, and were more rejected by their peers than non-victims. In terms of the paranoids and deniers, some aspects of the pattern seen in the replication were seen again after the substitution. That is, compared to the other two groups, victims and paranoids showed significantly elevated scores on two adjustment indexes (i.e. higher social anxiety and lower self-worth) and non-significant differences on the third (higher loneliness). However, the two sets of analyses also showed some differences. For CSB, the analysis of variance in the extension showed that paranoids endorsed significantly more characterological self-blaming attributions than deniers, but there was no significant difference in CSB

between victims and non-victims. For BSB, paranoids endorsed significantly more behavioural self-blaming tendencies than both deniers and non-victims.

When the bullying behaviour status groups in the analyses of variance were examined after the substitution of the teacher ratings, there were no significant differences between the groups on any of the measures examined (i.e. the self-blame measures, the adjustment indexes and peer reaction measures). However, as with the victim groups, the non-significant patterns shown in the analyses were similar to those seen in the bullying behaviour groups before the substitution. The exception here was the peer rejection analysis where instead of paranoids being the least rejected of the four groups (shown in Table 14), in this analysis non-bullies were the least rejected (see Table 16).

While there were similarities, overall there was a slightly stronger association between peer perceptions and the peer rating measures (peer acceptance and rejection). However, the pattern of correlations between perceptions of victim/bullying status and acceptance/rejection were quite similar across teacher ratings. Thus, the results overall appear to denote that there were slight indications of shared method variance. Alternatively, the present results could mean that the teacher measures employed in this study were not accurately capturing the constructs. However, as the Pearson's correlations between peer- and teacher-perceived bullying and peer- and teacher-perceived victimisation were so high this explanation seems unlikely (see Table 2 for correlations). While beyond the scope of this study, future research might examine the exact extent to which method variance is a factor using a multitrait-multimethod approach.

The next section of this chapter will look at each of the hypotheses of the present study in more depth and integrate them within the literature.

7.2 Specific Findings

7.2.1 Hypothesis One

That self-blame mediates the relationship between self-perceived victimisation and adjustment problems (loneliness and social anxiety).

The findings of this study partially support this hypothesis, in that it was shown that CSB mediated the relationship between self-perceived victimisation and adjustment problems but BSB did not.

The relationship between self-perceived victimisation and adjustment problems was less when the effects of CSB were controlled for. Thus, participants who viewed themselves as victims and endorsed more characterological self-blaming attributions were more likely to have adjustment problems than participants who viewed themselves as victims but did not endorse characterological self-blaming attributions.

It was also shown that the relationship between self-perceived victimisation and adjustment problems did not differ when the effects of BSB were controlled for. Thus, participants who viewed themselves as victims and endorsed behavioural self-blaming attributions were no more likely to have adjustment problems than those participants who did not endorse behavioural self-blaming attributions. These results support those found by Graham and Juvonen (1998a) in their sample of American middle school children.

The results from this study strengthen the argument made by Graham and Juvonen (1998a) that it is too simplistic to conclude all self-blame is maladaptive and that all young people blame themselves for their victim status. As noted in Graham and Juvonen (1998a), it may be more accurate to conclude that specific types of self-blaming attributions are maladaptive (CSB) while others are relatively non-effectual (BSB).

The findings do not fit with Janoff-Bulman's (1979, 1982) argument that BSB is adaptive when coping with victimisation. However, it does fit with other theorists who have argued that blaming one's behaviour is not related to increased recovery from illness and victimisation (Cole, Peeke & Ingold, 1996; Frazier & Schauben, 1994; Meyer & Taylor, 1986).

This particular mediational model of the subjective experience of victimisation and adjustment difficulties suggested by Graham and Juvonen (1998a) is backed-up by the present research. This model is compatible with findings based on similar other models linking victimisation and self-perceptions of loneliness (Boivin & Hymel, 1997) and self-esteem (Egan & Perry, 1998).

7.2.2 Hypothesis Two

Victims are less accepted and more rejected than non-victims.

The results of the present study support this hypothesis. The analyses show that victims were significantly more rejected than non-victims. This was true when the victim and non-victim groups were classified using teacher and self-perceptions as well as when they were classified using peer and self-perceptions as was done by Graham and Juvonen (1998a).

This finding is consistent with Graham and Juvonen (1998a) and research done by Perry et al. (1988) who found a positive correlation between victim status and peer rejection in third to sixth graders in the United States.

Why these victims are rejected more than their non-victimised classmates can be looked at from an attributional point of view. Studies have shown that many youngsters believe that victimised children bring the bullying on themselves (Graham & Juvonen, 1998b; Hoover, Oliver & Hazler, 1992). By blaming the victim for their situation, the youngster can attribute the victimisation to something within the victim and therefore give responsibility for the situation to that person. By distancing him or herself from that person through rejection,

the youngster is able to maintain the belief that they are different to the victim. This also helps them believe that the attributes of the victim caused the bullying situation and because they believe they are not like the victim, that type of situation will not happen to them in the future. However, more research is needed to document these possible reasons.

7.2.3 Hypothesis Three

Adjustment problems and low self-worth are better predicted by intrapersonal factors (self-perceptions of victimisation, and self-blame) whereas peer-rejection and acceptance are better predicted by interpersonal factors (peers' and teachers' perceptions of victimisation).

First, looking at self-perceptions, in the victimisation regression analysis self-perceived victimisation and CSB (intrapersonal factors) predicted loneliness, social anxiety and self worth (tables 3, 4, & 5) better than peers' or teachers' perceptions (interpersonal factors), although the relationship between CSB and self-worth was not significant. Looking at the bullying behaviour regression analyses, where self-perceived victimisation was not entered in as a possible predictor, it was seen that peer-perceived victimisation and CSB were identified as significant predictors of loneliness and social anxiety. This indicates that while self-perceptions of victimisation are clearly the strongest predictors, peer-perceptions also have some effect on adjustment difficulties.

In the analysis of variance, the groups where participants saw themselves as victims (victims and paranoids) reported significantly higher levels of social anxiety and self-worth than the groups where participants did not see themselves as victims (non-victims and deniers). The same pattern was also seen for loneliness and CSB but these differences were not significant.

These findings add to the growing amount of literature showing that self-perceptions of victimisation are associated with a range of psychological

problems, including loneliness (Boivin, Hymel & Bukowski, 1995; Boulton & Underwood, 1992; Olweus, 1993) and social anxiety (Olweus, 1978; Slee, 1994). These perceptions of victimisation may also put victims at higher risk of internalising disorders and depression (Boivin, et al., 1995; Grotzinger & Crick, 1996).

Second, looking at peer-perceptions, in the victimisation regression analyses peer-perceived victimisation was a better, though not necessarily significant, predictor of acceptance and rejection than self-perceived victimisation (the association between peer rejection and peer-perceived victimisation was limited to a trend, $p=.08$). These findings generally fit with the prevailing theory of peers' perceptions of victimisation. Studies on the reactions of peers to victims have so far shown a depressing picture of rejection and lack of empathy (Perry, et al, 1990; Perry et al, 1988). What little support there is for the victim seems to decrease as a function of age (Rigby & Slee, 1991). The results of the regression analyses, while fitting the overall view, did show stronger support for a lack of acceptance or neglect (not identifying the participant as someone they would hang around with) than rejection (i.e. identifying the participant as someone they would not hang around with) on the part of peers. Asher and Wheeler (1985) proposed that children who were neglected were at less risk of loneliness than those children who were rejected by their peers.

Results that also fit with the prevailing view come to light in the analyses of variance. In the groups where peers saw respondents as victims (victims and deniers), these children were significantly more rejected and less accepted by their peers than groups where peers did not consider participants as victims (non-victims and paranoids). These results showed that participants who were considered by their peers as victims were also less accepted and more rejected than those participants whose peers did not consider them as victims, irrespective of the participants' own views of their victim status. These results highlight the need for ascertaining other- as well as self-perceptions of a

person's victim status in order to identify the risks that are more salient to that person (Graham & Juvonen, 1998b).

7.2.4 Research Question One

How is bullying behaviour related to adjustment problems, self-worth, and self-blame?

Overall, participants who reported high levels of bullying behaviour in themselves also reported low levels of self-worth. Additionally, peer perceptions of their bullying behaviour was shown to moderate this relationship. Participants' self-worth was lowest when they reported high levels of bullying behaviour in themselves but their peers' reported low levels. This group of students (labelled paranoids) was also identified in the analyses of variance as having the lowest levels of self-worth of the four bullying behaviour groups (bullies, paranoids, deniers, non-bullies). This overall result is consistent with the prevailing views of the effects of aggression in children and extends this view into the self-perception area. As discussed in the introduction, Hymel, Bowker, & Woody (1993) found that aggressive children overestimated their competence across a number of domains. Here, it is shown that peer perceptions may influence this self-perception more than indicated in previous research.

A significant interaction effect was also found between self and peers' perception of bullying behaviour and the effects of the interaction on social anxiety in participants. Through the use of regression analysis it was determined that if there was a discrepancy between peers' and participants' perceptions of their bullying behaviour, the participant showed a higher level of anxiety. That is, participants who demonstrated high levels of social anxiety fell into two groups, those participants who have a reputation for bullying behaviour (but don't agree with it), and those participants who consider themselves high in bullying behaviour (but don't have that reputation).

None of the literature reviewed examined this phenomenon. There is no clear explanation for this finding and more research need to be done to clarify the issues at work here. Suggestions from the present research are that the first group may be using bullying behaviours as a coping mechanism for their social anxiety or to disguise their social anxiety, and perceive their behaviour as 'defending themselves'. Dodge and Somberg (1987) reported that aggressive boys were more likely than non-aggressive boys to attribute hostile intent to peers even when the evidence of peers' hostility was not clear. This bias increased in conditions where the aggressive boys were socially anxious. Another possible explanation for this finding could be related to the participants' home environment. If the child is in an aggressive home environment they might perceive their bullying behaviour as normal. Living in an aggressive home environment may also increase levels of social anxiety. The second group may be hypersensitive to their behaviour due to their anxiety and see themselves as more aggressive than they appear to their peers. On the other hand, looking from the other direction, a discrepancy in views may create a sense of uncertainty in social situations, so producing anxiety.

The results seen above were not fully replicated in the analysis of variance. Even though those participants who had a reputation for bullying behaviour (but don't agree with it [deniers]) and those participants who consider themselves bullies (but don't have that reputation [paranoids]) were reported as having the highest levels of social anxiety of the four groups, this difference did not reach significance. This may be due to the different criteria used to separate out the four groups for the regression analysis compared to the analysis (i.e. median split compared to 70th percentile cut-off; see results section), or also could be due to limited power in the analyses of variance.

When the relationship between bullying behaviour and self-blame were analysed, there were no significant differences for any of the groups (bullies, paranoids, deniers, or non-bullies). This result is not surprising and fits with

Crick and Dodge's (1994) social cognitive model of aggression. As bullying behaviour defined in this study is a proactive act of aggression, Crick and Dodge (1994) report that this type of aggressive child is not particularly vulnerable to attributional bias. This is consistent with the notion that this type of aggression is more motivated by instrumental gain.

7.2.5 Research Question Two

How is bullying behaviour related to peer acceptance and rejection?

Simple Pearson correlations showed that there was no significant association between self-perceived bullying behaviour and peer rejection. Neither were there any significant correlations between acceptance and any of the bullying behaviour measures (self, peer, or teacher). Results of the bullying behaviour regression analysis show that neither self nor others' perceptions of bullying behaviour affected the acceptance of the participants by their peers.

On the other hand, participants' reputation as bullies was associated with higher levels of peer rejection. Additionally, when peers saw participants as having high levels of bullying behaviour, the amount of peer rejection those participants received was moderated by teachers' perceptions of bullying behaviour. When both peers' and teachers' perceptions of participants' bullying behaviour were high, participants rejection by peers was also high. When peers' perceptions of bullying behaviour were high, but teachers' perceptions of this behaviour were low, peer rejection was reported to be lower. Teachers' perceptions of participants' bullying behaviour did not have a significant effect on participants' levels of rejection when peers perceived the participants as having low bullying behaviour. Therefore, in this study, it was others' perceptions of bullying behaviour that affected peer rejection. This result also highlights the importance of teachers' views of their pupils as having a moderating influence. What the teacher thinks of the pupil and how they act towards him or her, may affect how that pupil is treated by their peers in certain situations.

Looking at the analyses of variance, the group of participants with the highest level of rejection by peers were shown to be the same group who did not perceive themselves as having high levels of bullying behaviours but whose peers did perceive them this way (deniers). This group differed significantly from (a) participants who considered themselves to have a high level of bullying behaviour but whose peers did not (paranoids) and, (b) participants whom both peers' and participants' themselves considered as having low levels of bullying behaviour (non-bullies). This may be because the deniers are unaware, or deny, that others consider their behaviour aggressive. It may be that this lack of self-awareness or denial coupled with the bullying behaviour contributes to this level of peer rejection.

7.3 Limitations and Suggestions for Further Research

Generalising these results must be done with caution as the sample size was not large and participation in this study was voluntary. Both these factors bias the sample.

The researcher has some reservations about the merit of some measures used in the study that is being replicated. One concern with the attributional measure created by Graham and Juvonen (1998a) that emerged during the administration of the questionnaire was its suitability for younger children. In a pilot study conducted on children from eight years old, it was found that the level of abstract thought required for the attributional questionnaire was obviously not appropriate for the eight and nine year old children. There is concern then that this may also be true for the ten-year-olds, in the current study though it was not obviously apparent these participants. Due to the high correlation between BSB and CSB that was noted here, as was also found in Graham and Juvonen (1998a), it is not known whether the children participating in the study viewed the behavioural choices that they made as wholly unstable or controllable. This was a limitation of the original study that

was not addressed in this replication. A suggestion for future research is to reiterate the call by Graham and Juvonen (1998a) to look into methodologies that let respondents directly address the underlying causal dimensions to explain reasons for their peer victimisation.

With the measures used in this study, it was not possible to determine who was accurately reflecting the participant's level of victimisation and bullying behaviour, or whether the various perceptions of bullying and victimisation were capturing accurately the participants' behaviour at school. Using a parental measure of bullying and victimisation may give another view of the bullying behaviours of the participants. Examining the influence of family background as to what the child considers normal and abnormally aggressive behaviour is a direction that may be important in determining the link between self and others' perceptions of bullying behaviour and anxiety, and bullying behaviour and self-worth. Another assessment procedure of cause would be direct observation.

Additionally, investigation into teachers' influence on children's responses to bullies and victims should be undertaken. The results here show that the group of students most rejected were those whom both peers and teachers identified as bullies. That teachers' views may have an influence on how students treat their aggressive classmates is worth addressing more comprehensively in future research.

Overall, the findings of this research lend support to those of Graham and Juvonen (1998a) and also bring up some additional issues relating to bullying and peer victimisation. It is hoped that this study has highlighted the need for more research into these areas focusing not only on the bully and the victim, but extending the investigation out to other aspects of the children's environment such as home life and teacher influences.

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Appendix A – Participant Battery

Order _____ ID# _____

Name _____ Class _____

Age _____

Circle one: **Male** **Female**

Ethnicity (*tick as many as apply*):

____ Asian

____ European

____ Indian

____ Maaori

____ Pacific Islander

____ Pakeha

____ Other _____

(specify)

Who Lives at Home?

(*circle all that apply*):

Mum

Sister(s)

Dad

Grandparents

Brother(s)

Uncles/Aunts

Stepmum

Stepdad

Other _____

(specify)

WHAT DO YOU THINK?

We're interested in finding out what you think about some of the kids in your class and what you think about some common experiences kids have at school. There are no right or wrong answers to these questions. No one in your school will know what you write and the things you write will not affect you or anyone in your class.

Please be honest and answer as you really think and feel.

Imagine that...

Imagine that when you are in the toilets in your school, you see a couple of kids smoking. When they see you, one of them blocks the door so you can't get out, while the other presses you against the wall.

Below are some things other kids say they would think in this situation. How likely is it that you would have any of these thoughts if the toilets situation happened to you?

	definitely would <i>not</i> think	probably would <i>not</i> think	not sure	probably would think	definitely would think
1. "Nobody is safe in this school any-more there are too many kids like this."					
2. "This is my fault, I shouldn't have been in the locker room."					
3. "Why do I always get into these situations?"					
4. "This is the last time these kids will do this to me--I'll see to that!"					
5. "Sometimes you just happen to be in the wrong place in the wrong time."					
6. "These kids want to beat me up!"					
7. I know this will happen to me again.					
8. "These kids do this to me because other also treat me this way."					
9. "Kids do this to me because they know I won't cause trouble."					
10. "I should have been more careful."					
11. "There are too many kids who want to be tough."					
12. "How come these sorts of things happen to me and not other kids?"					
13. "These kinds of kids pick on everybody."					
14. "I should have known this was going to happen."					
15. "Kids do this to because they know that I won't get back at them."					
16. "This sort of thing is more likely to happen to me than other kids."					
17. "If I were a cooler kid, I wouldn't get picked on."					
18. "I shouldn't have bee here at this time(in the locker room)"					

Below are some things that other kids say they would feel in this situation. How likely is it that you would have any of these feelings if the toilets situation happened to you?

	definitely would <i>not</i> feel	probably would <i>not</i> feel	not sure	probably would feel	definitely would feel
1. I would be mad at the kids					
2. I would feel humiliated and embarrassed					
3. I would be scared					
4. I would cry					
5. I would feel that there is nothing I can do about this.					
6. I wouldn't really care					
7. I would be furious					

Below are some things that kids say they would do in this situation. How likely is it that you would do any of these things if the toilets situation happened to you?

	definitely would <i>not</i> do	probably would <i>not</i> do	not sure	probably would do	definitely would do
1. Have it out with the other kids right then and there.					
2. Just ignore it.					
3. Tell a teacher or another adult.					
4. Do something to get even					
5. Try to talk to the kids.					
6. Try to walk away and keep quiet.					

4. Has something like this ever happened to you at school?

1	2	3	4	5
never	once	a couple of times	a few times	several times

Imagine that...

Imagine that you are in the changing room getting ready for P.E., when one kid steals your shorts. The class is about to start and you have nothing to wear. Other kids are laughing at you.

Below are some things other kids say they would think in this situation. How likely is it that you would have any of these thoughts if the changing room situation happened to you?

	definitely would <i>not</i> think	probably would <i>not</i> think	not sure	probably would think	definitely would think
1. "Nobody is safe in this school any-more there are too many kids like this."					
2. "This is my fault, I shouldn't have been in the locker room."					
3. "Why do I always get into these situations?"					
4. "This is the last time these kids will do this to me--I'll see to that!"					
5. "Sometimes you just happen to be in the wrong place in the wrong time."					
6. "These kids want to beat me up!"					
7. I know this will happen to me again.					
8. "These kids do this to me because other also treat me this way."					
9. "Kids do this to me because they know I won't cause trouble."					
10. "I should have been more careful."					
11. "There are too many kids who want to be tough."					
12. "How come these sorts of things happen to me and not other kids?"					
13. "These kinds of kids pick on everybody."					
14. "I should have known this was going to happen."					
15. "Kids do this to because they know that I won't get back at them."					
16. "This sort of thing is more likely to happen to me than other kids."					
17. "If I were a cooler kid, I wouldn't get picked on."					
18. "I shouldn't have bee here at this time(in the locker room)"					

Below are some things that other kids say they would feel in this situation. How likely is it that you would have any of these feelings if the changing room situation happened to you?

	definitely would <i>not</i> feel	probably would <i>not</i> feel	not sure	probably would feel	definitely would feel
1. I would be mad at the kids					
2. I would feel humiliated and embarrassed					
3. I would be scared					
4. I would cry					
5. I would feel that there is nothing I can do about this.					
6. I wouldn't really care					
7. I would be furious					

Below are some things that kids say they would do in this situation. How likely is it that you would do any of these things if the changing rooms' situation happened to you?

	definitely would <i>not</i> do	probably would <i>not</i> do	not sure	probably would do	definitely would do
1. Have it out with the other kids right then and there.					
2. Just ignore it.					
3. Tell a teacher or another adult.					
4. Do something to get even					
5. Try to talk to the kids.					
6. Try to walk away and keep quiet.					

7. Has something like this ever happened to you at school?

1	2	3	4	5
never	once	a couple of times	a few times	several times

HOW DO YOU FEEL AT SCHOOL?

	ALWAYS TRUE	TRUE MOST OF THE TIME	SOME- TIMES TRUE	HARDLY EVER TRUE	NOT TRUE AT ALL
1. It's easy for me to make new friends at school					
2. I have nobody to talk to in class					
3. I am good at working with other kids in my class					
4. It is hard for me to make friends at school					
5. I have lots of friends in my class					
6. I feel alone at school					
7. I can find a friend in my class when I need one.					
8. It is hard to get other kids in school to like me					
9. I don't have anyone to hang out with at school					
10. I get along with other kids in my class					
11. I feel left out of things at school					
12. There are no other kids I can go to when I need help at school					
13. I don't get along with other kids in school					
14. I'm lonely at school					
15. I am well liked by kids in my class					
16. I don't have any friends in class					

WHAT I AM LIKE

	Really True for me	Sort of True for me		Sort of True for me	Really True for me
1			Some kids are often <i>unhappy</i> with themselves.	BUT Other kids are pretty <i>pleased</i> with themselves.	
2			Some kids <i>do not</i> laugh at other kids	BUT Other kids <i>often</i> laugh at other kids	
3			Some kids are <i>not</i> called bad names by other kids.	BUT Other kids are <i>often</i> called bad names by other kids.	
4			Some kids <i>do not</i> like the way they are leading their life.	BUT Other kids <i>do</i> like the way they are leading their life	
5			Some kids <i>do not</i> hit and push other kids about	BUT Other kids <i>do</i> hit and push other kids about.	
6			Some kids <i>often</i> pick on other kids.	BUT Other kids <i>do not</i> pick on other kids	
7			Some kids are <i>happy</i> with themselves as a person.	BUT Other kids are often <i>not</i> happy with themselves.	
8			Some kids <i>do not</i> have a lot of kids that want to hang out with them	BUT Other kids <i>do</i> have a lot of kids that want to hang out with them	
9			Some kids are <i>often</i> picked on by other kids.	BUT Other kids are <i>not</i> picked on by other kids	
10			Some kids are very <i>happy</i> being the way they are.	BUT Other kids wish they were <i>different</i>	
11			Some kids are <i>not</i> hit and pushed around by other kids.	BUT Other kids are <i>often</i> hit and pushed around by other kids	
12			Some kids are <i>not</i> very happy about the way they do a lot of things	BUT Other kids think the way they do things is fine	
13			Some kids are <i>not</i> laughed at by other kids	BUT Other kids are <i>often</i> laughed at by other kids	
14			Some kids <i>like</i> the kind of <i>person</i> they are	BUT Other kids often wish they were someone else	
15			Some kids do not call other kids <i>bad</i> names	BUT Other kids often call other kids <i>bad</i> names.	

These are things that a lot of school kids think about.

HOW OFTEN DO YOU THINK...?

	NEVER	HARDLY EVER	SOME- TIMES	PRETTY OFTEN	ALMOST ALL THE TIME
1. About whether other kids like you.					
2. That you'll say something dumb in front of other kids.					
3. That other kids think you're weird					
4. That you'll get teased or made fun of.					
5. About how much other kids dislike you					
6. That other kids will think you're a wimp					
7. That someone will push you around.					

Name 3 students from your class list...

ID# _____

1. ...who you like to hang out with.

a. _____ b. _____

c. _____

2. ...who you do NOT like to hang out with.

a. _____ b. _____

c. _____

3. ...who start fights or push other kids around.

a. _____ b. _____

c. _____

4. ...who get picked on or pushed around.

a. _____ b. _____

c. _____

5. ... who get put down or made fun of by others.

a. _____ b. _____

c. _____

6. ... who put other kids down or say mean things about others.

a. _____ b. _____

c. _____

7. ...who are the "coolest" kids.

a. _____ b. _____

c. _____

Appendix B – Teacher Battery

An Attributional Analysis of Peer Harassment in School Children

Teachers Questionnaire

There are two parts to this questionnaire. The first part is an adaptation of a measure given to the students in your class/year.

The second part of the measure is one designed to get your impressions of each student in your class/year individually

This questionnaire will be collected on the day that the measures are administered to the children in your class/year.

Thank you for taking the time to fill out this measure.

From the class list provided, name as many kids as appropriate....

1. ...who start fights or push other kids around.

2. ...who get picked on or pushed around.

3. ... who get put down or made fun of by others.

4. ... who put other kids down or say mean things about others.

Appendix C – Participant Information Sheet and Consent Form

A Study of Relationships between Kids in Schools

INFORMATION SHEET - PARTICIPANTS

1. What is this study about and who is doing it?

My name is Tricia Stuart I am a student at Massey University. I am doing this study as part of my Master of Science degree in Psychology. This research is looking at some different ways in which school children think about how they get along with other kids and how this makes them feel. My supervisor for this project is Dr. Kevin Ronan and he is a senior lecturer at Massey University.

2. What will you be asked to do?

I will be asking you to fill out a questionnaire with the rest of the class, in class time.

The questionnaire will take less than an hour to get through. The first part of the questionnaire will ask questions about what you think about other kids in your class. The second part of the questionnaire will ask questions about some things kids your age do and to see what you think about some of these things.

No one in your school will know what you write and what you write will not affect anyone in your class. All your answers are confidential, this means that they are private. The answers to your questions will be only be used for my research. You will be able to see a summary of the findings when my research is finished.

You do not have to take part in this study. If you decide to take part it would be good if you could try to answer all the questions but you don't have to answer any question you don't want to answer.

Please feel free to contact me or Dr. Ronan if you have any more questions.

Contact numbers:

Tricia Stuart	021 2534 865
Kevin Ronan	350 5799 ext.2069

A Study of Relationships between Kids in Schools

CONSENT FORM - STUDENT

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered, and I understand that I may ask further questions at any time.

I understand I have the right to withdraw from the study at any time and to not answer any particular questions.

I **agree/do not agree** (cross out one) to provide information to the researcher on the understanding that my name will not be used without my permission.

(The information will be used only for this research and publications arising from this research project).

I **agree/do not agree** (cross out one) to participate in this study under the conditions set out in the Information Sheet.

Signed:

Name:

Form Teacher:

Date:

Appendix D – Parent Information Sheet and Consent Form

An Attributional Analysis of Peer Harassment in School Children

INFORMATION SHEET – PARENTS/GUARDIANS

1. What is this study about and who is doing it?

My name is Tricia Stuart I am a student at Massey University. I am undertaking this study as part of my Master of Science degree in Psychology. This research is looking at some different ways in which school children think about peer harassment and how these different ways of thinking are linked to levels of some feelings. My supervisor for this project is Dr. Kevin Ronan he is a senior Lecturer at Massey University.

2. What will I be asking your child to do?

I will be asking your child to fill out a questionnaire, in their class time.

The first part is a peer nomination form. The second part of the questionnaire will be asking questions about some common experiences kids his/her age have and getting his/her opinion about these experiences.

No one in your child's school will know what (s)he writes and the things (s)he writes will not effect anyone in her/his class.

Everything that is written on the questionnaires will be entirely confidential. The only person that will know the identity of any particular student will be the researcher. Neither the school nor the university will have access to this information. The only thing that the information from these questionnaires will be used for is this research and subsequent professional publications.

A summary of the findings will be available on request after the conclusion of the study around March 2000.

If your child chooses to participate in this study she/he has the right to:

- decline to participate at any time
- refuse to answer any particular questions
- withdraw from the study at any time
- ask any questions about the study at any time during participation
- provide information on the understanding that her/his name will not be used unless (s)he gives permission to the researcher
- be given access to a summary of the findings of the study when it is concluded

Thank you for taking the time to read this.

Please feel free to contact me or Dr. Ronan if you have any questions.

Contact numbers

Tricia Stuart 021 2534 865
Kevin Ronan 350 5799 ext.2069

An Attributional Analysis of Peer Harassment in School Children

CONSENT FORM – PARENT/GUARDIAN

I have read the Information Sheet. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I understand my child/ward has the right to withdraw from the study at any time and to decline to answer any particular questions.

I **agree/do not agree** (delete one) to let my child/ward provide information to the researcher on the understanding that their name will not be used without their permission.

(The information will be used only for this research and publications arising from this research project).

I **agree/do not agree** (delete one) to let my child/ward participate in this study under the conditions set out in the Information Sheet.

Signed (Parent/Guardian):

Name (Parent/Guardian):

Date:

If you would like to receive a summary of the findings of this research please enter your address in the space provided below. Thank you.

Address:

.....

Appendix E – Teacher Information Sheet

An Attributional Analysis of Peer Harassment in School Children

INFORMATION SHEET – TEACHER

1. What is this study about and who is doing it?

My name is Tricia Stuart I am a student at Massey University. I am undertaking this study as part of my Master of Science degree in Psychology. This research is looking some different ways in which school children think about peer harassment and how these different ways of thinking are linked to levels of some feelings. My supervisor for this project is Dr. Kevin Ronan he is a senior Lecturer at Massey University.

2. What will you be asked to do?

I will be asking you to fill out a questionnaire.

The questionnaire is in two parts. The first part of the questionnaire will ask questions how well you think some of the kids in your class fit some behavioural characteristics. The second part of the questionnaire will be asking questions about each of the kids in your class separately and asking you to rate them compared to an average kid their age, on a number of different behavioural characteristics.

No one in the school will know what you have written and the things that you write will not effect anyone in your class.

The questionnaires will be collected two weeks from now on the day that the data is collected from you students.

Everything that is written on the questionnaires will be entirely confidential. The only person that will know the identity of any particular student or know any of the information given by you will be the researcher, neither the school nor the university will have access to this information. The only thing that the information from these questionnaires will be used for is this research and subsequent professional publications.

For this study it will be assumed that filling in the questionnaire implies consent.

A summary of the findings will be available on request after the conclusion of the study around March 2000.

If you choose to participate in this study you have the right to:

- decline to participate at any time
- refuse to answer any particular questions
- withdraw from the study at any time
- ask any questions about the study at any time during participation
- provide information on the understanding that your name will not be used unless you give permission to the researcher

- be given access to a summary of the findings of the study when it is concluded

Thank you for taking the time to read this.

Please feel free to contact me or Dr. Ronan if you have any questions.

Contact numbers

Tricia Stuart 021 2534 865

Kevin Ronan 350 5799 ext.2069