

The Nature of Bullying in Early Childhood

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Abstract

Research into school bullying has focussed in the main on children aged over the age of 8 years. This thesis attempts to redress the balance and describes a large empirical study investigating the nature of school bullying in a sample of 104 schoolchildren from two Reception Classes and two Year One classes in four London primary schools. The children were aged between 4 and 6 years.

The roles taken in bullying were assessed using peer, self and teacher nominations. It was found that children did not nominate others for taking all of the Participant Roles identified by Salmivalli, Lagerspetz, Björkqvist, Österman and Kaukiainen (1996), but were able to nominate peers for the roles of Bully, Victim and Defender. When the stability of these roles was examined over intervals of 2 months and 3.5 – 4 months it was found that, although both Bully and Defender status were relatively stable, Victim status was not. Although many children were exposed to victimisation transiently, only for a very few was it a stable experience.

Some of the factors found to be related to bullying in older samples were found to support this. Young Victims were not physically weaker than others, they did not exhibit poorer theory of mind skills, neither were they socially rejected by peers or insecurely attached. These factors have been suggested as being potential risk factors for repeated victimisation or consequences of stable victimisation.

Young Bullies were found to be physically strong, socially rejected and more likely to be insecurely attached. These findings are similar to those found in older samples of Bullies. However, young Bullies did not exhibit superior theory of mind as has been found in older groups.

The understanding of bullying held by young children and their teachers was also examined. The children held different definitions of bullying than their teachers, and were more likely to consider provoked aggression or a straight fight as bullying than their teachers.

Each of these findings are discussed within a framework of the developing roles in bullying.

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Chapter One: Introduction and Literature Review

Chapter overview

Research into school bullying spans some 20 years. However, the majority of research has focussed on children over the age of eight years. This has resulted in a dearth of research into bullying in infant and nursery classes. This chapter will discuss the research carried out investigating the nature and extent of bullying and how these findings may relate to a younger sample. It will then go on to discuss what bullying means to children and adults. The individual differences between Bullies and Victims will be reviewed in terms of physical and cognitive characteristics. The relationships of children involved in bullying will also be reviewed with reference to peer and family relationships.

1.1 Introduction to the bullying literature

The first significant research program into bullying was that of Olweus (1978). That research was influential and during the last 10 years in particular there has been an increase in the studying of bullying internationally (Smith, Morita, Junger-Tas, Olweus, Catalano & Slee, 1999). Although closely related to (in fact, a subset of) aggression, bullying is essentially an issue of relationships – between ‘bully’ and ‘victim’ - as much as it is one of school and institutional environments. In this chapter I will review what has been found out about bully/victim relationships.

1.1.1 Definitions of bullying

There is no universal agreement on definitional issues; however there is now some degree of consensus amongst many researchers in this area that bullying is a form of repeated aggressive behaviour involving an imbalance of power between the bully and victim. Specifically, bullying is:

- Behaviour which hurts or harms another person
- With intent to do so
- The hurt or harm may be physical or psychological
- It is repeated

- There is a power imbalance such that it is difficult for the victim to defend him- or herself.

(Farrington 1993; Olweus, 1993a; Smith & Sharp, 1994)

The first three of these criteria specify aggressive behaviour in general. The fourth and fifth specify the subset of aggressive behaviour which is bullying; that it is behaviour which happens more than once, and is done by a more powerful person against someone less powerful (this could be in terms of social standing, strength or abilities etc). That is, it is a relationship characterised by continued aggression and with a power asymmetry – a ‘picking on’ or ‘harassment’ which can appear unfair to onlookers and which can have serious effects for those who are victims. It is a fairly broad definition, and could include family abuse and workplace bullying, as well as school bullying. However, in this thesis I will limit my discussion to school bullying.

1.1.2 Types of bullying

Studies from the aggression literature have identified three main categories of aggressive behaviour; physical aggression, verbal aggression and indirect (relational or social) aggression (Björkqvist, Lagerspetz & Kaukiainen 1992; Crick & Grotpeter 1995). Similar categories can be applied to bullying (Rivers & Smith, 1994). Of these, physical and verbal aggression have long been recognised. For example, the earlier definition of Olweus (1991) defined bullying in terms of “being hit, kicked, threatened, locked inside a room and things like that ... it is also bullying when a child is teased repeatedly”. In fact, physical bullying – the larger child hitting and beating up a smaller one – is probably the prototypical example of the term. However verbal bullying is usually the most frequent (e.g. Whitney & Smith 1993).

Although the early version of the Olweus questionnaire did not explicitly include indirect/social/relational bullying, these came to be recognised as important during the 1990s. Writing about aggression generally, Björkqvist et al (1992) described indirect aggression as ‘some kind of social manipulation, that is, using others as a means of attack instead of attacking oneself, or otherwise manipulating the social network of the class, in order to exclude one target person from friendship groups’ (Björkqvist et al

1992, p 118). This includes behaviours such as gossiping, suggesting shunning of the other, spreading rumours or breaking contact with the person in question.

Crick and Grotpeter (1995) introduced the concept of relational aggression, defined as 'harming others through purposeful manipulation and damage of their peer relationships' (Crick & Grotpeter 1995, p 711). This includes excluding someone from a game, telling the victim that they will not be friends with them unless they do what they say, and spreading rumours. Galen and Underwood (1997) have described a slightly broader term, social aggression, as 'directed toward damaging another's self-esteem, social status, or both, and may take direct forms such as verbal rejection, negative facial expressions or body movements, or more indirect forms such as slanderous rumours or social exclusion' (Galen & Underwood 1997, p 589).

There is some overlap between the concepts of relational, indirect and social aggression, but they are not identical. Indirect aggression stresses that the aggression is not done face-to-face, but by a third party. Relational aggression stresses the objective of the aggression – damaging peer relationships. Thus some forms of social exclusion, e.g. "you can't play with us, go away!" would be relational and social, but not indirect. Other forms of social exclusion, such as that identified by Björkqvist et al (1992), may be relational and social and indirect, e.g. suggesting shunning of another. Later versions of the Olweus questionnaire include 'sent nasty notes' and 'no one ever talks to them' to incorporate these types of bullying (Whitney & Smith, 1993).

The elaboration of indirect/relational/social forms of aggression and bullying has been valuable; however, it is worth pointing out that individuals high in physical/verbal/direct aggression also tend to be high in indirect/relational aggression. (For example, correlations between overt and relational aggression from .58 to .87, Tomada & Schneider, 1997; and .63, Crick, Casas & Mosher 1997). Thus we are talking about styles, rather than types, so far as most individual pupils are concerned.

Björkqvist et al (1992) found that there are age trends in the bullying strategies used by children. In a study of 8 to 14 year olds Björkqvist et al reported that younger children

tend to favour the use of direct methods of aggression, whereas older children rely more on indirect aggression. Rivers and Smith (1994) have reported a similar developmental trend in bullying. However, although the types of bullying used by younger children under the age of 8 years would be hypothesised as being more direct, this has not been directly examined. It has been suggested that indirect aggression is a more sophisticated type of aggression as it minimises detection. In support of this are studies by Kaukiainen, Björkqvist, Österman and Lagerspetz (1996), Kaukiainen, Björkqvist, Lagerspetz, Österman, Salmivalli, Rothberg and Ahlbom (1999) and Björkqvist, Österman and Kaukiainen (2000) which report a significant correlation between social intelligence and indirect aggression (but no such link between social intelligence and physical aggression). This is discussed in more detail later on in this chapter.

Crick, Casas and Mosher (1997) and Crick, Casas and Ku (1999) have found that boys are more likely to use and experience physical bullying and that girls are more likely to use and experience relational bullying. Archer and Parker (1994) and Olweus and Endresen (1998) have suggested an evolutionary explanation for these sex differences; bullying is sex-specific in ways which damage the victim most appropriately – physical status in the case of boys, peer reputation/network in the case of girls; especially as puberty is approached and these factors influence desirability vis-à-vis mate choice characteristics.

1.1.3 The extent of bully/victim problems

The Olweus questionnaire (Olweus 1993a) has been used extensively for large scale survey work on the extent of bully/victim problems. It is a self-report instrument, including a definition of bullying. It was first used in Norway, where Olweus reported some 16% of pupils being involved in bully/victim relationships: 7% as bullies, 9% as victims. In England, Whitney and Smith (1993) reported rather larger figures: in primary schools, 12% bullies and 27% victims, in secondary schools, 6% bullies and 10% victims. Roughly comparable figures are now available from many countries, including Australia, Canada, Spain, Italy, Portugal, Germany, Ireland and Japan (Smith et al. 1999a). However, the widespread use of this questionnaire may be one reason

why the majority of research into school bullying has focussed almost exclusively on children aged 8 years and over.

Whitney and Smith (1993) reported that the number of individuals who self reported victimisation decreases with age, whereas the numbers of self reported bullies remains fairly constant. If these results are extrapolated back it might be predicted that even more children are being victimised in the first years of school. Madsen (1996;1997), Smith, Madsen and Moody (1999) and Smith, Shu and Madsen (in press) have gone some way to account for the age related decrease in victimisation. While they suggest that some changes may be due to differing interpretations of the term 'bullying' with age, the two most powerful explanations appear to be (a) the increasing social skills of children who might be victims, and (b) the greater opportunity for bullies to pick on younger (usually, weaker) children. With regard to the developing coping skills of victims, Smith et al (1999b) have found evidence to support this hypothesis, as older victims have been found to be those with the poorest coping skills.

Research has indicated that coping strategies may be important and that certain coping strategies are related to a fall in victimisation, and others are not. Kochenderfer and Ladd (1997) investigated the success of different coping strategies used by 5 and 6 year olds in response to bullying. They found that 'having a friend help' and 'telling an adult' were the most successful coping strategies and were related to a reduction in victimisation from autumn to spring. Whereas, 'fighting back' was related to stable victimisation (although this was only significant for boys). The most effective responses to bullying also appear to be age related. Salmivalli, Karhunen and Lagerspetz (1996) found that 12 and 13 year olds rated the absence of helplessness in girl victims as an effective method of reducing victimisation. The adolescents also considered nonchalance and the absence of counteraggression in boy victims to diminish or even stop bullying.

A substantial amount of research has investigated the stability of the roles taken in bullying, whether children who bully continue to do so and whether individuals who are victims of bullying are consistently victimised.

Not looking at bullying directly, Egan, Monson and Perry (1999) reported high levels of stability of aggression and victimisation in an older sample of children aged between 8 and 13 years. Ladd and Burgess (1999) report stability of aggressive behaviour in kindergarten and grade one. Salmivalli, Lappalainen and Lagerspetz (1998) found relative stability in the Participant Roles taken in bullying (described in more detail in section 1.2.5) by 12/13 year olds over a two year period. Other researchers have also found that in addition to the other roles, Victim status is stable by middle childhood (e.g. Boulton & Underwood 1992; Boulton & Smith 1994). Hodges and Perry (1999) reported that victimisation accounted for 71% of the variance in victimisation one year later in middle childhood.

The findings are less clear cut for younger children. Kochenderfer and Ladd (1996) examined the stability of victimisation in a group of kindergartners from autumn to spring using self reports of victimisation. They reported that a large proportion of young children were exposed to victimisation; 20.5%. However, fewer (only 9%) remained as victims for the duration of the study. Perry, Perry and Boldizar (1990) attempt to account for the low stability of victimisation in this age group. They suggest that aggressive children 'try out' a variety of targets when they enter a new peer group (e.g. when they start school). They then learn over time by the reactions of their victims and limit their aggression to fewer children. This would account for the finding that few children remain as victims over time at this age, although many different children may transiently experience victimisation. However, Crick et al (1999) have reported remarkable stability of victimisation in 3 – 5 year olds. They used teacher reports of victimisation over a one month interval and found stability for relational victimisation [$r = 0.63$] and physical victimisation [$r = 0.37$].

I would suggest that this apparent disparity in findings reported by Kochenderfer and Ladd (1996) and Crick et al (1999) may be related to the different methodologies employed by the two studies. The use of teacher reports of victimisation may be subject to more biases than self reports as teachers may be more vulnerable to halo effects (the tendency to allow an overall impression of a pupil or one particular outstanding trait to influence the total rating of them). In addition, the large difference in the retest time

intervals could have had an influence on the findings. It would be more likely that there might be some stability of victimisation over a one month interval than from autumn to spring. The research described in this thesis will examine the issue of stability further by assessing the stability of the roles using peer nominations.

The suggestion that victim status may not be a stable experience for many young children could have some serious implications for intervention strategies. If true, one would predict that victims at this age would not exhibit the same problems (e.g. low self-esteem, loneliness and social rejection) as older victims have been found to experience. Some of these predictions will also be examined.

1.1.4 Types of bully/victim relationship

Until recently most research into bullying has tended to focus on the dyadic interaction between the bully and victim. However, the emphasis has recently shifted toward a more holistic approach encompassing the larger social group.

Salmivalli et al (1996a) extended the categorisation of bullies by examining bullying as a group process, involving not only Bullies and Victims, but also Assistants to the bully, Reinforcers, Outsiders and Defenders of the victim. They administered the Participant Roles Questionnaire (50 items describing bullying-situation behaviour) to 12-13 year old Finnish students. Based on the peer evaluations of behaviour most children could be assigned to participant roles:

- Bullies (8.2%): ringleaders who start the harassment and encourage others to join in.
- Assistants (6.8%): more passive followers of the bully, who aid the bully in the harassment, but do not start it.
- Reinforcers (19.5%): who laugh at the victim and cheer the bully on.
- Defenders (17.3%): who offer support to the victim, by telling an adult, comforting the victim, or actively attempting to get the bullying to stop.
- Outsiders (23.7%): who keep their distance from the bullying situation and may pretend that nothing is going on.
- Victims (11.7%): who are targets of repeated aggression.
- No role (12.7%): who could not be assigned a clear participant role.

The participant roles have also been identified in a group of younger English children aged 7-10 years (Sutton & Smith 1999). Gender differences were found in the roles taken by children in bullying. Boys were found to be more likely to be Bullies or Assistants and girls were more likely to be Defenders (Salmivalli et al 1996a; Sutton and Smith 1999). However, these roles have not as yet been investigated below the age of 7.

A sizeable group of children cannot be classified simply as bullies or as victims, but appear to both bully other children and to be victimised. These children (up to one-half of all victims) have been labelled bully/victims (Stephenson & Smith 1989; Boulton & Smith 1994; Bowers, Smith & Binney 1994). Salmivalli (1998) notes that there probably is overlap between bully/victims and children described as provocative victims (Pikas 1989; Olweus 1978, 1984, 1993a), aggressive victims (Schwartz, Dodge, Pettit & Bates 1997) or as reactive/proactive aggressors (Vitaro, Gendreau, Tremblay & Oligny 1998).

1.2 Different definitions from different perspectives

Several researchers have found that some of the behaviours defined as bullying by researchers are not as important as others for the different people involved in bullying (teachers, parents and pupils). This is an important issue as asking teachers and pupils about bullying may result in different answers based on their definitions of the term. Some researchers have attempted to account for this by providing a definition of bullying for study participants. However, Hoover, Oliver and Hazler (1992) found that although a definition of bullying explicitly stating the repeated nature of bullying was given to participants (high school students) at the start of the study investigating their perceptions of bullying, some participants still placed unwarranted emphasis on isolated incidents.

1.2.1 Teachers' and pupils' perceptions of bullying

It is vital to discover how teachers define bullying as they are usually responsible for implementing bullying interventions. This would obviously have important

implications for interventions and the management of bullying and school anti-bullying policies.

Teachers focus on the difference in power between the bullies and victims (Siann, Callaghan, Lockhart & Rawson 1993), the repetition of the behaviours (Madsen 1996; Siann et al 1993) and the intention of the aggressor (Madsen 1996) when defining behaviours as bullying. They tend to focus more on physical aggression and threats as bullying, rather than 'laughing at someone's misfortune' or social exclusion (Boulton 1997).

In comparison with teachers, children tend to have a slightly different definition of bullying. They do not necessarily believe that a behaviour needs to be repeated in order to qualify as bullying (Guerin & Hennessy 1998; Madsen 1996; Smith & Levan 1995; Hoover et al 1992; La Fontaine 1991) and are less focussed on the intentions of the aggressor (Guerin & Hennessy 1998) and rather more focussed on the outcome of the aggression (Madsen 1996; La Fontaine 1991). Children are able to generate a model of bullying which includes physical, verbal and indirect aggression, although, like adults they tend to view bullying mostly as a form of physical aggression (Guerin & Hennessy 1998; Smith & Levan 1995; Arora & Thompson 1987).

Smith and Levan (1995) investigated much younger children's perceptions of bullying. They found that children aged 6-7 years had an understanding of bullying which involved indirect as well as direct bullying. Even at the age of 6, 70% of pupils included direct physical examples, 45% direct verbal examples and 15% indirect examples of bullying in their definition. However, Smith and Levan noted that young children tended to have an over-inclusive definition of bullying which extended to include fighting, and non-bullying aggressive behaviours which were not necessarily repeated.

Madsen (1996) examined age trends in the perception and understanding of bullying. She asked participants aged 5 years to adulthood "What do you think bullying means?" She found that very young children used adjectives and direct examples more than older

groups, but rarely mentioned repetition or the actions being unprovoked. The younger children tended to give broader definitions of the term, which is consistent with work on aggression (Younger, Schwartzman & Ledingham 1985;1986).

Madsen also examined the discrepancies between the definitions of parents/teachers and pupils. It was noted that pupils felt that the behaviour did not have to be repeated, depending on the severity of the behaviour and the effect on the victim. Madsen found that pupils deemed the adverse effect on the victim to be the most essential feature in defining bullying (consistent with Guerin & Hennessy 1998; La Fontaine 1991). A situation could be perceived as a bullying situation even if it was not the intention of the 'bully' to bully. La Fontaine (1991) reported that the children who telephoned a bullying helpline were also more focused on the outcome of the bullying situations, rather than the intentions of the bullies themselves. This is in contrast with the perceptions of the parents/teachers who reported that a behaviour needed to be repeated in order to be defined as bullying and they tended to focus more on the intention of the aggressor than pupils (Madsen 1996).

Although there are some similarities between researchers' definitions of bullying and those held by teachers and pupils, there appear to be important differences which may have implications for the design and application of research and intervention schemes. This thesis will expand on this research by examining the definitions of bullying of children aged between 4 and 6 years.

1.3 **Individual child characteristics**

Researchers have been interested in what distinguishes bullies from victims. What are the factors that may put children at risk of being a bully or a victim? A sizeable amount of research has focussed on the individual characteristics of children; their physical size and cognitive abilities among others. In the next two sections I will focus on the research carried out with older groups into the physical and cognitive characteristics of children taking different roles in bullying.

1.3.1 Physical strength

The popular, stereotypical image of bullying is a bigger, stronger child beating up a smaller weaker child, and when children themselves are asked why they are bullied they often refer to physical attributes, e.g. obesity, red hair, wearing glasses, or abnormalities of speech (Dawkins 1996).

Lagerspetz, Björkqvist, Berts and King (1982) found that victims were rated as being physically weaker by their teachers than children who were not involved in bullying. They were also more likely to be obese. Olweus (1978) also found on the basis of teacher ratings, that victims were physically weaker than other children. Hodges, Malone and Perry (1997) also report that 8 to 13 year old victims were rated as being physically weak by their peers. Hodges and Perry (1999) found evidence to suggest that physical weakness is related to victimisation a year later. Olweus (1993b) also reports that physical weakness contributes significantly to the prediction of victim status. In contrast bullies were rated by their teachers as being physically stronger than other children (Lagerspetz et al 1982). However, Byrne (1994) found that 14% of bullies were rated as being small in size by their teachers. He questions the stereotypical view of the bully as big and strong and suggests that it is the positive attitude towards violence that really distinguishes the bullies.

In general, the research findings on external factors suggest that physical weakness may be a direct risk factor in being a victim in older groups and that bullies may be stronger than others, although this has not been investigated in groups of young children under the age of eight years.

1.3.2 Cognitive characteristics

1.3.2.1 *Theory of mind and social skills*

There is a growing body of research that attempts to examine the relationship between social understanding (including theory of mind¹) and social behaviour (e.g. Murray, Woolgar, Briers & Hipwell 1999; Dunn & Cutting 1999; Bosacki & Astington 1999).

¹ Theory of mind refers to the understanding that other people have different thoughts, beliefs and desires (Premack & Woodruff 1978; Fodor 1992).

The dominant model referring to social skills in relation to social behaviour has been Crick and Dodge's (1994) social information processing model which suggests that children follow a series of sequential steps when processing social information: (1) encoding of cues (both internal and external); (2) interpretation and mental representation of those cues; (3) clarification or selection of a goal; (4) generation of possible responses; (5) choice of most appropriate response; and (6) behavioural enactment. Crick and Dodge (1996) argue that skilled processing of these steps leads to competent social performance, whereas distorted or deviant processing can lead to socially inappropriate behaviour including aggression. Several of the processing steps have been found to be different in aggressive children. For example, step 1, step 2 and step 5.

Dodge and Coie (1987) examined whether proactively (of which bullying is a subset) and reactively (hostile) aggressive boys exhibited similar hostile attributional biases. The boys were shown a video recording of a series of vignettes depicting provocations by peers and asked to interpret the intentions. Only the reactively aggressive boys exhibited 'hostile attribution biases', the proactively aggressive boys did not. However, proactively aggressive children viewed both physical and verbal forms of aggression in a more positive way than other children who were not proactively aggressive (including a group of children who displayed reactive patterns of aggression) (Crick & Dodge 1996). They also viewed instrumental goals in social situations more positively than other children, which would suggest a distorted type of processing at step (3) in Crick and Dodge's (1994) model which would contribute to their use of aggressive behaviour in social situations.

Although the prevailing view from the social information processing model has been that both bullies and victims have some deficiencies or deficits, recent work has questioned this so far as bullies are concerned. Sutton, Smith and Swettenham (1999a) argued that ringleader bullies would need considerable skills to be successful; they need to organise a gang, choose a suitable victim and way to victimise, and a time and venue to minimise detection or its consequences. They suggested that ringleader bullies

should score highly on theory of mind tasks (rather than poorly, as might be predicted by a deficit view).

In a study with 7-10 year old children, Sutton, Smith and Swettenham (1999b) found that ringleader Bullies were superior to any of the participant roles (of Salimivalli et al, 1996a) in their ability to read the mind of others (good theory of mind) and to use this to manipulate and dominate others. Bullies were high in their social cognition scores but showed a deficit in feeling for others (empathy). Victims showed the poorest performance in the social cognition tasks. Bullies (ringleaders) and controls (Outsiders, Defenders) scored significantly higher than Victims, with Assistants and Reinforcers taking an intermediate place. Sutton et al argue that particular forms of bullying are more likely to require social cognitive abilities. Indirect or relational types of bullying may require more consideration of others' thoughts, beliefs and desires than physical or verbal forms of bullying. This has been confirmed by the positive correlation found between indirect aggression and peer-rated social cognition (Kaukiainen et al 1996; 1999). Björkqvist et al (2000) discuss the relationship between social intelligence and conflict behaviour. They report high correlations between indirect aggression and social intelligence [$r = 0.55$], weaker correlations between social intelligence and verbal aggression [$r = 0.39$] and the weakest correlations between physical aggression and social intelligence [$r = 0.22$]. They suggest that socially intelligent individuals choose methods which are relatively 'safe' and expose them to as little direct danger as possible, i.e. indirect bullying as opposed to direct bullying as the more subtle and underhand nature of indirect bullying minimises the chances of detection.

Other researchers have also questioned the social skills deficit hypothesis. Keating and Heltman (1994) examined the relationship between dominance and nonverbal deception skill in preschool children (aged 3 – 6 years) and undergraduate students. They found that the ability to encode credible deceptive messages predicted dominance in preschool children and men (but not women). They suggested that these findings were generally consistent with a social skills approach to dominance in which manipulative ability and deception are important in achieving and maintaining social power.

What about those prosocial children; the Defenders? Sutton et al (1999b) reported that controls (Defenders and Outsiders) performed significantly better than Victims on theory of mind tasks. Studies have also examined the relationship between social skills and social cognitive abilities. Hala, Chandler and Fritz (1991) found that teacher and parent ratings of social maturity covaried with false belief understanding. Watson, Nixon, Wilson & Capage (1999) found that even after controlling for the effects of age and language ability, false belief understanding predicted a significant amount of additional variance in social skills (positive social skills) as rated by teachers of 3-6 year olds. Björkqvist et al (2000) also examined positive responses to conflict situations in relation to social intelligence. They found that peaceful conflict resolution correlated more strongly with social intelligence than any type of aggression [$r = 0.80$].

Nelson and Crick (1999) have suggested that prosocial young adolescents (aged between 10 and 12 years) display slightly different social information processing to other non-aggressive non-prosocial individuals. They report that, when presented with hypothetical scenarios, prosocial children displayed a benign attribution bias (i.e. were less likely to attribute hostile intent in an ambiguous situation). In addition, prosocial children were more negative about aggressive responses and more positive about prosocial responses to provocation and were more likely to choose relational goals rather than instrumental goals when dealing with provocation.

1.3.2.2 *Executive function*

Additional research has implicated executive functions in aggression. Anderson (1998) defines executive functions as being ‘...agreed to encompass the skills necessary for purposeful, goal-directed activity’ (Anderson 1998, p319). It is argued that executive functions are not maximally used in executing everyday routine behaviours, but rather come into play in novel or unfamiliar situations (Shallice 1988), which may include conflict situations.

Welsh, Pennington and Grossier (1991) identified 3 main areas of executive functioning; 1) Working memory and planning; 2) Inhibitory control; 3) Self-monitoring / attentional flexibility. Lezak (1995) identified qualitative features of executive dysfunction. She suggested that an individual with executive dysfunction

would exhibit poor self-control, impulsivity, erratic careless responses, poor initiation and inflexibility. This relationship between executive dysfunction and behaviour appears to have some long-term effects. Shoda, Mischel and Peake (1990) report a relationship between self-imposed delay-of-gratification at the age of 4 years and later social and cognitive competence during adolescence. They report that individuals who were able to delay gratification in order to obtain a preferable reward at the age of 4, when rated as adolescents, were considered to show more self-control in frustrating situations, were less likely to yield to temptation, were more intelligent, and less distractible when trying to concentrate.

Séguin, Pihl, Harden, Tremblay and Boulerice (1995) and Séguin, Boulerice, Harden, Tremblay and Pihl (1999) reported that stably aggressive boys performed poorly on executive function tasks compared to other boys. Hughes and colleagues (Hughes, Dunn & White 1998; Hughes & Richards 1998) found that very young 'hard to manage' children performed significantly worse on tasks which assessed inhibitory control and planning than their peers. Hughes, White, Sharpen and Dunn (2000) examined observed behaviour in relation to performance on executive function tasks (inhibitory control and planning) and found that angry and antisocial behaviours were related to poor performance on these tasks.

It has been suggested that the relationship between poor performance on tasks assessing executive function and aggressive behaviour could reflect an inability to organise several parameters at once, to uncover complex rules, anticipate consequences of choices or actions, and reflect abstractly in order to solve interpersonal or social problems. The capacity to reflect in these individuals may quickly be overwhelmed when they are in a situation that requires a more adaptive social response (Patterson & Newman 1993). This may result in aggressive behaviour.

If bullies are the unskilled aggressors it has been suggested according to the 'deficit model' (e.g. Crick & Dodge 1999), then it might be predicted that they may well be impulsive and lacking in planning abilities, i.e. poor executive functions. However, if

bullies are superior social manipulators (e.g. Sutton et al 1999ab) then inhibitory control and good planning abilities would advantageous to them.

A further interesting dimension is the relationship between theory of mind and executive function. Recently it has been found that children with autism tend to show impairments on a wide range of tasks assessing theory of mind, and also show deficits in executive skills. This has led to a debate within developmental neuropsychology. Some researchers suggest that the development of a theory of mind constitutes a separate domain-specific achievement, with an associated neural substrate (e.g., Baron-Cohen, Ring, Moriarty, Schmitz, Costa & Ell 1994; Brothers & Ring 1992). Others view the performance on tasks of theory of mind, most notably false belief, as involving not only understanding of other minds, but also executive functions, such as working memory and inhibitory control. Russell (1997) has described the theoretical and empirical grounds for suggesting that theory of mind and executive function are inextricably linked. This has led to a great deal of debate regarding the development of these abilities in children. However, this will not be discussed further in this thesis as I am concerned with the relationship these abilities have with behaviour (aggression, victimisation and prosocial behaviour), rather than the origins of theory of mind and executive function.

Neither executive functions nor theory of mind have been investigated in relation to bullying, victimisation and defending behaviour in young children under the age of 7 years. This thesis will expand on previous research by examining the theory of mind and executive functions of children aged 4 to 6 years in relation to the role taken in bullying.

1.4 Relationships

In addition to the individual characteristics of children involved in bullying, researchers have also examined the relationships of these children. The areas in which most of the research has concentrated are the relationships within the peer group and the family.

1.4.1 Relationships with peers

Many researchers have examined the social status and friendship networks of children involved in bullying behaviour during middle childhood and adolescence. Perry, Kusel and Perry (1988) report results from a multiple regression which indicates that bully and victim status account for about half of the variance in peer rejection.

The literature is fairly consistent in its findings for victims of bullying. The general consensus is that victims tend to be lower in popularity than other children, low on peer acceptance, and high on rejection (Lindman & Sinclair, 1989; Rican, 1995a; Olweus 1978; Boulton & Smith 1994; Perry et al 1988; Salmivalli et al 1996a; Lagerspetz et al 1982). Slee and Rigby (1993) reported that the tendency to be victimised correlated negatively with self appraisals of number of friends and popularity. Boulton and Underwood (1992) found that victims reported being unhappy and lonely at school and as having few friends.

In a longitudinal study, Hodges and Perry (1999) found that peer rejection contributed to gains in victimisation over time and that initial victimisation also predicted increases in peer rejection. Hodges and Perry suggest that these reciprocal influences may act in a way that supports the stability of victimisation over the age of 8. Kochenderfer and Ladd (1997) noted the protective function of friendships against victimisation. They found that 'having a friend help' was related to a decrease in victimisation for boys, whereas 'fighting back' was related to continued victimisation. Pellegrini, Bartini and Brooks (1999) reported that both having friends and being liked by peers was protective against victimisation, but the latter factor was more powerful. Boulton, Trueman, Chau, Whitehand and Amatya (1999) examined the friendship protection hypothesis longitudinally in a sample of 11 year olds. Victimisation was indexed using peer nominations for four types of victimisation; physical, verbal, indirect and relational. Children with a reciprocated best friend in their class received fewer victim nominations from their peers than those without a reciprocated best friend. Children who were friendless at both assessment points, six months apart, showed the highest increase in victimisation over this period, whereas those with a reciprocated best friend at both assessment points showed the highest falls in victimisation.

The findings are not as clear cut for bullies (Monks & Smith 2000) and may vary with age. Foster, DeLawyer and Guevremont (1986) reported that aggression was associated with peer rejection, whereas sharing and providing help and support were associated with peer acceptance; results which would suggest that bullies would be rejected by the peer group. Juvonen, Nishira, Chang and Ross (1999) found that older Bullies were not only rejected, but also accepted by a number of peers (i.e. controversial as described by Coie, Dodge & Coppottelli 1982). Lindman and Sinclair (1989) found that in general bullies were less popular than their peers. Lagerspetz et al (1982) also found bullies were less popular than controls and only slightly more popular than victims. However, Olweus (1978) and Stephenson and Smith (1989) reported that bullies were average in popularity.

Dodge, Coie, Pettit and Price (1990) found that the relationship between bullying and peer status varied with age for boys. First graders who were popular engaged in more bullying than average first graders; whereas popular third graders did not differ from average in bullying. Rough play was not associated with rejection, although rejected boys displayed more reactive aggression and instrumental aggression than average boys. However, the laboratory setting of this study and the exclusion of girls limits the generalisability of the findings.

As many of the studies have focussed exclusively on male aggressors it is interesting to note that several studies report relevant sex differences here. Lindman and Sinclair (1989) found female bullies to be more popular than male bullies. Similarly Rican (1995) reported that girl bullies were only slightly less popular than non bullies, and were significantly more popular than girl victims; however boy bullies were significantly less popular than their peers, and less popular than boy victims.

Salmivalli et al (1996a) also reported male bullies being rejected by their classmates, whereas female bullies scored high on both social acceptance and social rejection (which is more consistent with the controversial profile described by Coie et al 1982).

These findings tie in with work carried out by Crick et al (1997). They report that girls are more likely to use relational aggression than boys and that boys are more likely to use overt aggression than girls. These types of aggression are differentially related to sociometric status. Crick et al (1997) report that overtly aggressive children are more rejected by the peer group than those children who are relationally aggressive. Therefore, the different bullying strategies employed by aggressive boys and girls may go some way to account for their social standing within the peer group.

Boulton and Smith (1994) reported that children who were rejected were more likely to receive bully nominations and victim nominations than children in the other sociometric groups (neglected, average, popular, controversial). Bullies and victims were also less likely to be classified as popular and more likely to be classified as rejected by their peers. However, as all of their bullies were boys, these findings only extend to male bullies. They also found that bullies were more likely to be classified as controversial, which suggests that they may be liked and disliked by similar numbers of peers. They speculate that being popular with some peers could account for why bullies continue with their aggressive behaviour. The fact that some classmates dislike the bully may not matter to him if he has a group of friends in which he is popular. From this comes the suggestion that bullies may be members of groups which provide support and reinforcement for bullying behaviour.

Cairns, Cairns, Neckerman, Gest and Garipey (1988) found that aggressive adolescents may well be less popular within the class than their peers, but tend to be nuclear members of a small social group. Unlike victims, bullies tend not to be isolated. Although they are also often rejected by the peer group as a whole, they may belong to a social subgroup in which they are popular. Cairns et al (1988) found that aggressive children aged between 10 and 13 form 'social clusters', and although these children were not well liked by most of the other children, many expressed a high level of liking for each other. Poulin, Cillessen, Hubbard, Coie, Dodge and Schwartz (1997) reported similarity among friends, especially with respect to aggressive behaviour. When they examined this further they found that this applied only for proactive aggression (of which bullying is a form) and not for reactive aggression.

Salmivalli, Huttunen and Lagerspetz (1997) examined the social networks of children involved in bullying. Children involved in harassing others, including bullies, assistants and reinforcers belonged to larger social networks than defenders, outsiders and victims, suggesting that although they may be rejected by most of their peers they may be well-liked by their smaller social group. Children tended to form networks with others who had similar or complementary participant roles in bullying to themselves.

Boulton (1995) directly observed peer interactions in the playground by boys classified as either bullies, victims or not involved. There was no difference between the three groups in terms of their social network size (how many different children each target child interacted with in a non-aggressive way). However bullies tended to have a significantly larger mean number of companions at any one time than the other two groups, while victims tended to be in smaller groups than bullies and were more likely to spend time alone than either bullies or not involved children. Pepler, Craig and Roberts (1998) made naturalistic observations of children in Canadian playgrounds. They reported that teacher- and peer-rated aggressive children did indeed display more physical and verbal aggression in the playground, but also generally had high rates of interaction including prosocial behaviour.

The finding that older bullies are disliked by many of their peers, but are popular members of a smaller subgroup may be related to age. Patterson, DeBaryshe and Ramsey (1989) suggest that the relationship between aggression and social status can be viewed within a 2 stage developmental model. They propose that aggressive/delinquent behaviour is influenced by family background. Children who are aggressive then tend to be rejected by their peer group, leading to further aggressive behaviour. Later, these children often become members of an aggressive/delinquent peer group, of which they are a popular member. Older bullies may be more likely than younger bullies to be popular with some peers as older children are less disapproving of bullying and aggression than their younger counterparts (Huesmann & Guerra 1997; Rigby 1997; Menesini, Eslea, Smith, Genta, Giannetti, Fonzi & Costabile 1997). In addition, Salmivalli, Kaukiainen and Lagerspetz (2000) also report that although aggression in

general is related to rejection, indirect aggression (which is more characteristic of older children; Björkqvist et al 1992) is related to social acceptance.

Very little research has been carried out to investigate the sociometric status of Defenders. Foster et al (1986) report that sharing and providing help and support were related to peer acceptance. Salmivalli et al (1996a) found in their sample of 12 and 13 year old Finnish students that those individuals who were the most highly accepted (and also scored low on rejection) were Defenders, making them the most popular children in the peer group.

In this thesis the sociometric status of very young children (aged 4 to 6 years) will be investigated in relation to the role taken in bullying.

1.4.2 Relationships with family

There is a considerable literature on the types of parenting characteristics and family relationships that are related to aggressive behaviour in children. Hinshaw, Zupan, Simmel, Nigg and Melnick (1997) and Olweus (1980) have shown that parenting which is characterised by a lack of warmth, negative emotional attitude and a lack of involvement is predictive of aggressive behaviour in children. It has also been shown that permissive, tolerant parenting which fails to set clear limitations on aggressive behaviour (towards sibs, peers and other adults) is also implicated in children's aggressive behaviour (Olweus 1994; Loeber & Hay 1994). Parents who use methods of discipline which are power-assertive, including harsh physical punishment and violent emotional outbursts (Cicchetti & Bukowski 1995) and provide an aggressive model for their children according to social learning theory (Bandura 1973) are more likely to have children who are aggressive.

The attachment profiles of children with aggressive or behavioural problems have been investigated by researchers. Attachment theory suggests that children build up an internal working model during interactions with the attachment figure (usually a parent) in infancy, which lays down a schema for how relationships function. Hence, the

interactions with parents during infancy, by the formulation of certain type of schema, affect the way in which the child will behave and relate to others later in life.

Ainsworth developed a test known as the Strange Situation Paradigm (Ainsworth & Wittig 1969). This involves the examination of children's responses to a standardised set of separations and reunions with their mother in a laboratory setting. This has led to distinctions being made between children in terms of the security of the relationship. Children are considered to be securely attached (Type B) if they show distress at their parent's absence, but greet them positively when they return and are able to use them as a base from which to explore. Insecure-Avoidant (Type A) children are not distressed when their parent departs, and ignore them on their return. Insecure-Ambivalent (Type C) children are very distressed at the separation from the parent and fail to settle or explore at the reunion. The fourth category, Insecure-Disorganised (Type D) was developed on the basis of clinical studies. These children can show any of the responses described by the other three attachment profiles, but often appear dazed, depressed, confused or apprehensive.

Research has linked early insecure, and especially disorganised-controlling (D) attachment with aggression and behaviour problems. Several studies have found that insecure children tend to have more difficult peer relations and less self-regulatory behaviour and that early avoidant attachment has been related to later hostility and aggressive relationships (LaFreniere & Sroufe 1985; Bost, Vaughn, Newell-Washington, Ciclinski & Bradbard 1998; Fagot & Kavanagh, 1990; Lyons-Ruth, 1996).

Troy and Sroufe (1987) used contrived play settings with 4 and 5 year old children and found that children who were bullies and children who were victimised in these play settings were more likely to be insecurely attached (based on assessments using the Strange Situation at 18 months). Myron-Wilson (1998) also examined the attachment classifications of bullies and victims aged 7 to 10 years using the Separation Anxiety Test (SAT). She also found that both bullies and victims were more likely to be insecurely attached. However, the two groups showed different patterns of insecurity.

Angry enmeshed (E2) children were more likely to bully, whilst individuals with a passive enmeshed attachment profile (E1) were more likely to be victims.

However, not all research studies have supported the association between attachment security and aggression/behaviour problems. Moss, Parent, Gosselin, Rousseau and StLaurent (1996) have suggested 2 possible reasons which may account for the mixed results linking behaviour problems with attachment classification; 1) The differences in classification (some use secure Vs. insecure, others ABC, others ABCD); 2) The time differences in attachment classification and assessment of behaviour problems (often 4 years or more).

Moss et al (1996) examined the behaviour and social competence of children 2 years before and closely after an assessment of attachment classification using Mary Main's separation-reunion with mother assessment (between age 5 and 7 years). They report that children classified as having disorganised/controlling patterns of attachment (D) were more likely to be perceived by teachers as having behaviour problems than their secure peers, both at the time of the assessment and 2 years beforehand. The authors propose that the disorganised style shown by these children reflects their competing desires to approach and avoid, which results in incomplete or contradictory behaviour patterns. They hypothesise that these behaviour patterns relate to the child's need as an infant to seek comfort and proximity from a caregiver who invokes fear. This may involve parenting which is very inconsistent, for example alternating between hostility, emotional detachment and positive affect. Moss et al have put forward a theoretical link between this pattern of attachment and externalising behaviour problems. This association takes the form of the child focusing on controlling, non-reciprocal behaviour patterns by pre-school age (which, it has been suggested is an attempt to bring some kind of stability to his/her world), leaving very little resources for learning and exploration.

Solomon, George and De Jong (1995) examined attachment in relation to maternal reports of behaviour at home and teacher reports of behaviour at school of a group of middle class 6 year olds using the Main and Cassidy (1988) separation-reunion

assessment. They report that children who were classified as having a controlling attachment (D) had significantly more behaviour problems and were more aggressive as rated by their mothers. Teachers also rated controlling children as having more difficulties in the classroom and they were significantly more likely to be rated as hostile. The authors make a point of the finding that avoidant and ambivalent children did not differ significantly from children who were securely attached. They suggest that this finding implies that it is the lack of a coherent strategy which causes problems for the disorganised children, rather than the security/insecurity of the attachment.

Shaw, Owens, Vondra, Keenan and Winslow (1996) examined early risk factors and the pathways for the development of disruptive behaviour at the age of 5 years. They found that infants with disorganised attachment classifications at 12 months (as examined by the Ainsworth Strange Situation Paradigm) and whose mothers perceived them as difficult during the second year showed significantly more aggressive problems at the age of 5 than those with only one of the two risk factors present.

Harrist, Pettit, Dodge and Bates (1994) report a small study investigating the relation between the nature of the mother-child interaction and the child's subsequent kindergarten adjustment. They classified interactions in terms of positive synchrony (sensitive responding, with positive affect), negative synchrony (with negative affect), nonsynchrony (inconsistent, non-reciprocal responding). Although the authors do not directly state it, it is possible that positive synchrony is the style most linked with secure attachment, negative synchrony with avoidant insecure attachment and nonsynchrony with disorganised-controlling attachment. Teacher ratings of aggression were predicted by low rates of positive synchrony, and high rates of both negative synchrony and nonsynchrony. Similarly, peer ratings of aggression were predicted by low levels of positive synchrony and high levels of negative synchrony.

In addition to the attachment relationship, researchers have examined the family structures and types of parenting experienced by children involved in bullying at school. Smith and Myron-Wilson (1998) reviewed the literature examining family relationships in relation to bully and victim status. Bullies are less likely to have a father figure in the

home, be that a biological parent or step parent (Rigby, 1994; Bowers et al 1994). Bullies also reported less warmth within the family and a lack of positive communication between family members (Batsche & Knoff, 1994). They also tend to view their families as distant, with distinct power relations between family members (Bowers et al 1994; Berdondini & Smith 1996). Farrington (1993) found that bullies are also more likely to have parents who were bullies themselves.

Victims' families tend to be somewhat enmeshed (Bowers et al 1994; Berdondini & Smith 1996), with mothers being somewhat overprotective of the child in question. Olweus (1993b) has also suggested that boys may become more vulnerable to victimisation if their father is distant and highly critical of the boy, not providing him with a satisfactory role model.

Rigby (1994) found that there were sex differences in the family characteristics that put children at risk of being bullied or becoming bullies at school. He found that boys who were bullies tended to have families that were lacking in warmth and positive communication between family members. However, girls whose families fitted this profile were just as likely to be victims as they were to be bullies.

Similarly, victimisation has been found to be related to different types of maternal behaviour for boys and girls. Maternal overprotectiveness was found to be related to victimisation in boys, especially when the boy was afraid and felt compelled to submit to the mother during a conflict. Whereas for girls, victimisation was related to maternal hostility, especially in circumstances when the girl was perceived as being physically weak (Finnegan, Hodges & Perry 1998). Ladd and Ladd (1998) reported that victimisation was related to parenting styles characterised by high intrusive demandingness and low responsiveness for both boys and girls in kindergarten. Additionally, parent-child relationships characterised by intense closeness were also associated with peer victimisation for boys.

Finnegan et al (1998) have suggested that these gender differences may reflect the maternal behaviour hindering a child's gender appropriate development. In the case of

girls, they suggest that mothers' hostility may decrease their sense of connectedness in relationships (leading to anxiety). In contrast, they suggest that maternal over-protectiveness may hinder boys' search for autonomy and independence.

Schwartz et al (1997) reported on the early socialisation of aggressive victims (bully/victims), passive victims (victims) or non-victimised aggressors (bullies). Children classified as aggressive victims at 10 years were significantly more likely to have had experiences with harsh, disorganised, and potentially abusive home environments 5 years earlier. Mother-child interactions at 5 years were characterised by hostility and restrictive or overly punitive parenting. In contrast, the non-victimised aggressors had a history of greater exposure to adult aggression and conflict, but not victimisation by adults.

The links between family background and bully/victim roles in school can be seen as the beginnings of possible developmental pathways, based on the child learning that certain kinds of behaviours are normative, and/or developing working models of relationships as postulated by attachment theory. These will be examined in this thesis in relation to the roles in bullying taken by 4-6 year old children.

1.5 Chapter summary

To summarise, bullying is a serious problem that has been fairly extensively investigated in middle childhood. This chapter has highlighted the extent of the bullying problem faced in schools. It has also suggested that this problem may be even more prevalent within younger age groups. However, there has been little research into bullying before the age of eight. This thesis will attempt to go some way to redress the balance. The studies discussed in this chapter relating to older children have suggested that there may be many physical, cognitive and social correlates of bullying. The empirical studies reported in the following chapters will first examine the definitions of bullying held by young children and their teachers, the nature and extent of bullying at this age and some of the correlates of these behaviours including physical strength, cognitive abilities (theory of mind and executive functions), peer relationships and

family relationships. These findings may then enable age appropriate interventions to be applied to this age group.

1.6 Thesis Outline

The remainder of this thesis will describe the differences in teachers' and young pupils' definitions of bullying. It will then go on to outline a large empirical study investigating bullying in a young age group 4-6 years and discuss the nature and stability of the roles taken in bullying at this stage. Later chapters will discuss some of the physical and cognitive characteristics of children taking different roles in bullying. The following chapters will then discuss the peer and family relationships of children taking different roles in bullying. Finally, the findings will be discussed within a developmental framework of bully/victim problems at school and implications for interventions will be suggested.

Chapter Two: Methodology and Participants

Chapter Overview

The previous chapter reviewed the literature regarding some of the issues involved in school bullying which will be investigated in the remainder of this thesis. This chapter will describe the development of the present study and the methodological issues surrounding the data collection.

2.1 Development of a rationale

As outlined in Chapter One, most research into bullying has focussed on children aged eight years and above. Very little research has examined the nature and extent of bullying in younger children. However, what research has been done suggests that it is fairly commonplace (e.g. Crick 1996 & 1997; Kochenderfer & Ladd 1997; Alsaker & Perren 1999). Therefore, young children aged between four and six years were chosen as the sample group for this research. This study aimed to investigate the nature of bullying when children start school and some of the correlates of the roles taken in bullying at this age.

2.2 Methodological Issues

2.2.1 Recruitment and Sampling.

Primary schools in the local area (Southeast London) were approached. Initially head-teachers were telephoned and given a brief description of the aims of the study and the nature of the data collection and were asked if they would permit a class of children in the school to take part in the research project.

2.2.2 Methods of data collection.

2.2.2.1 Why peer/self/teacher evaluations?

Other researchers investigating victimisation at this young age have used self reports (e.g. Kochenderfer & Ladd 1997) or teacher reports (e.g. Crick et al 1999) of victimisation.

There are problems with the sole use of self reports of sensitive material such as bullying and victimisation. Smith and Sharp (1994) note that using self reports to investigate the extent of bullying may result in underestimation of the phenomenon. It is not always easy to admit to being aggressive or picked on yourself. When evaluating their own actions many people are overly positive and often attribute socially desirable traits and behaviours to themselves; known as the self-serving attribution bias (Reber 1995).

There are also drawbacks to using teacher reports of bullying and victimisation. Whitney and Smith (1993) found that up to half of children who were bullied did not tell anyone about the victimisation. This worrying trend suggests that teachers and parents may not be aware of a large proportion of bullying. In addition, Pellegrini and Smith (1998) provide different attributions to boys' compared to girls' use of physically aversive strategies, which may also be considered by teachers.

Researchers have proposed the benefits of peer reports as being less prone to bias than self reports and that teachers have less exposure to the subtleties of bullying that the pupils themselves may notice (Ahmad & Smith 1990). In addition, using peer-evaluations it is possible to get as many as 20-30 opinions of each child participating in the study which may increase the reliability of the measure (Salmivalli 1998). Would young children be able to nominate peers as taking different roles in bullying? Crick et al (1997) have found that young children aged between three and a half and five and a half were able to nominate peers for aggressive and prosocial behaviour. Kochenderfer and Ladd (1997) have also reported that young children aged between 3 and 5 were able to provide peer reports of victimisation.

Other researchers have complemented peer reports of aggression with self reports, teacher reports or parent reports (e.g. Lagerspetz, Björkqvist & Peltonen 1988; Pulkkinen & Pitkanen 1993). I also felt that it was important to use a combination of peer, self and teacher nominations in this study, given that each of these may contribute unique variance (Pellegrini & Bartini, in press).

2.2.2.2 *Why interviews?*

Most research with older children has relied on anonymous questionnaires to elicit self reports (e.g. Olweus 1993a) or peer nominations (e.g. Salmivalli et al 1996a). Obviously, the comprehension, reading and writing abilities of young children needed to be carefully considered when designing a methodology to obtain peer and self nominations for bullying role. An interview method was opted for as writing and reading skills would not be an issue in an interview situation.

Additionally it was important to design an interview that would not place too many memory or linguistic demands on participants. Cartoon scenarios can be easily understood by children and have been found to be a helpful tool in the teaching of social behaviour to children (Warden & Christie 1997). They also place less linguistic and memory demands on the child than providing them with a verbal explanation alone. Therefore, cartoons were used within an interview format in order to illustrate the different roles and bullying situations.

There were two aims of the peer/self/teacher nominations. The first was to investigate the types of bullying and victimisation used and experienced at this age and the second was to examine the roles taken in bullying by children in this age group.

2.2.2.3 *Types of bullying/victimisation*

Studies from the aggression literature have identified different types of aggressive behaviour. Aggression and bullying can be direct in nature (in face-to-face encounters) or it can be indirect (via a third party) (Björkqvist et al 1992). As discussed in Chapter One there are three main categories of aggressive behaviour, physical, verbal and relational/social aggression (Crick & Grotpeter 1995). Similar categories can also be applied to bullying (Rivers & Smith 1994).

Physical and verbal bullying are probably the most easily recognised forms of bullying. Physical bullying generally takes place in direct encounters and can involve hitting, kicking, or pushing. Verbal bullying is also direct in nature and usually takes the form of name calling and verbal abuse.

Crick and Grotpeter (1995) introduced the concept of relational aggression, which they defined as being directed at damaging peer relationships. Galen and Underwood (1997) define social aggression as being aimed at damaging an individual's self esteem, social standing or both. There is a certain amount of overlap between the concepts of relational and social aggression, however they are not identical as discussed in more detail in Chapter One. However, both social and relational bullying can be direct or indirect in nature, e.g. telling someone that they cannot play would be social/relational and direct, whereas spreading nasty rumours about someone would be social/relational and indirect.

Some research into bullying has focussed on one or two different types of bullying and may underestimate the amount of bullying (e.g. Pellegrini & Bartini in press). In order to assess the styles of bullying used by children at this age four pictures were created, each depicting a different bullying situation (Cartoon One – see Appendix One); direct physical (hit, kick, push), direct verbal (name calling), direct social/relational (social exclusion; a child telling another “You can't play with us”), indirect social/relational (rumour spreading).

Four stick-figure cartoons were used to illustrate the different types of bullying; social exclusion (direct social/relational), physical bullying (direct), verbal bullying (direct) and rumour spreading (indirect social/relational). This was accompanied by verbal descriptions of each of the situations. Children were asked to nominate their peers or themselves for using the different types of bullying strategies.

2.2.2.4 *Bullying Roles:*

Initially, the six Participant Roles identified by Salmivalli et al (1996a; 1998) in 12 –15 year olds and later identified by Sutton and Smith (1999) in 7-10 year olds were examined. In addition to the Bully and the Victim, Salmivalli et al identified the roles of:

- Defender - tells an adult about the bullying, comforts the victim or asks the bully to stop.

- Outsider - keeps out of the bullying situation by ignoring it or pretending that nothing is going on.
- Assistant - does not start the bullying themselves, but joins in.
- Reinforcer - encourages bullying by cheering the bully on or laughing at the victim.

A cartoon depicting each of the roles in a playground scene (Cartoon Two – see Appendix Two) was developed and was accompanied by verbal descriptions of each role. This was used to illustrate the behaviours and enable children to identify which role they took and their peers took in bullying situations.

2.2.2.5 Further development of the interview for Study Two

On the basis of the low levels of nominations received for Reinforcer, Assistant and Outsider reported in Study One (described in detail in Chapter Three, Study One) the focus was limited to the other three roles in bullying; Bully, Victim and Defender for which nominations were given. An additional role was included in the study, Bystander. This was used instead of Outsider as, although the two terms have some common meaning, Bystander does not imply that the child deliberately ignores the bullying situation.

In Study Two only Cartoon One was used as there were fewer demands on the child as they were only required to nominate peers or self for three roles in bullying; that of the Bully, Victim or Defender (Bystander was assigned by default if they were not nominated for any of the other roles). Coding of the roles was based on the coding used by Salmivalli et al (1996a). Peer nominations were standardised by class and children were assigned to the role on which they received the most nominations. If they scored within 0.1 on their two highest roles then they were assigned to a dual role. If they did not receive above the mean number of nominations for any role they were assigned to the role of Bystander. Children were assigned to the role/roles for which they self nominated, if they did not self nominate for any of the roles they were assigned to the role of Bystander.

The assessment was given to teachers in a questionnaire format with written descriptions of the roles and types of bullying provided (see Appendix Three). Children were assigned to the role/roles for which their teacher nominated them. If their teacher did not nominate them for taking a role in bullying they were assigned to the role of Bystander.

2.2.2.6 Definitions of Bullying

Young children are known to have a different understanding of bullying than adults and older children (e.g. Madsen 1997). Previous research has shown that they have a somewhat more over-inclusive definition of bullying than older children and adults (Smith & Levan 1995).

In order to examine what children understood bullying behaviour to entail they were asked an open ended question “What do you think bullying is?” They were then presented with a series of 17 stick figure cartoons in a pseudo-random order depicting different social situations and asked to identify them as bullying or not bullying (see Appendix Four). The cartoons were a subset of a larger sample used with older children in the TMR project¹. Fewer cartoons were used with this group in order that presentation time was not too long and also because some of the cartoons (including sexual and racial harassment) were considered to be inappropriate for use with young children.

Children were first asked an open-ended question about their understanding of bullying; “What do you think bullying is?” before being presented with the scenarios to identify as bullying or not bullying. The open-ended question was given first as Smith & Levan (1995) report that although young children are limited to verbal and physical acts when defining bullying for themselves, they are able to identify indirect acts as bullying when presented with examples.

¹ The TMR project refers to the Training and Mobility of young Researchers. The project title is ‘The nature and prevention of bullying; The causes and nature of bullying and social exclusion in schools and ways of preventing them’. The project co-ordinator is Professor Peter K. Smith at Goldsmiths College, University of London. (website; www.gold.ac.uk/tmr/).

The scenarios were also presented in questionnaire format to the children's teachers in order to examine adult definitions of bullying (see Appendix Five).

The open-ended question was coded using categories based on those developed by Madsen (1997). Madsen (1997) used these categories to code the responses given by children and adults to an open-ended question "What do you think bullying means?"

These were:

Physical - Participant mentions that bullying can be physical or cites a physical example of bullying.

Verbal - Participant mentions that bullying can be verbal or cites a verbal example of bullying.

Relational - Participant mentions that bullying can be relational or cites a relational example of bullying.

Adjective - Any adjectives mentioned in reference to an action not a person e.g. naughty, mean, nasty.

Inequality of power - The target is in the weaker position.

Effect on target - Harmful effect on target as a result of the aggressors actions.

Intention - Pain caused deliberately.

Variant term - Words synonymous with bullying e.g. picking on, harassing, victimising.

Reason - Aggressor had a reason for bullying.

Repeat - A repeated or continuous behaviour.

Not repeated - A one-off incident considered to be bullying.

Person or persons - reference is made to both individuals or groups bullying.

Mental - included: mental manipulation, mental oppression, emotional abuse, psychological abuse.

Indirect - Participant mentions that bullying can be indirect or cites an indirect example of bullying.

The individual responses given to the 17 stick figure cartoons were coded as being bullying, not bullying or not sure.

2.2.2.7 Responses to victimisation

Kochenderfer and Ladd (1997) identified a variety of different responses to victimisation given by children aged 3-5 years in the U.S. They report that the most effective at reducing victimisation over time was 'getting a friend to help' and 'telling an adult'. The least helpful at reducing victimisation was found to be 'fighting back'. The responses to victimisation were examined in this group of children in the U.K. Children were shown a series of cartoons depicting different responses to victimisation on the part of the victim (fighting back, walking away, crying, giving something up, telling an adult, getting a friend to help). This assessment was administered immediately after the roles interview. The Kochenderfer and Ladd (1997) cartoons were used to enable children to identify the responses to victimisation by those individuals they had just nominated as being victimised (see Appendix Six).

2.2.2.8 Physical Characteristics of children in different bullying roles

The common perception is that bullies and victims differ in physical characteristics. Although research has suggested that physical weakness may be a risk factor for victimisation (Hodges & Perry 1999), research regarding bullies is not conclusive. Some research has suggested that bullies are bigger and stronger than their victims (Lagerspetz et al 1982; Olweus 1978) whereas others have suggested that it is the bullies' positive attitude to violence which is important (Byrne 1994). However, these studies have been conducted with older children where indirect social manipulation is suggested as being a more common method of bullying (Björkqvist et al 1992). This may account for the conflicting findings as physical strength and size may not be as important in older groups as they may be in younger groups, where direct methods of bullying such as physical bullying are thought to be more common (Björkqvist et al 1992).

Lagerspetz et al (1982) found that teachers were able to rate their pupils' physical strength. In this study teachers were given a class list of the children participating in the study and next to each child's name was printed a scale of one to five. The teachers were asked to rate each child in their class on their physical strength. Ratings were

made on a 5 point scale from: 1 – Weak; 2 – Quite Weak; 3 – Average; 4 – Quite Strong; 5 – Strong (see Appendix Seven). Teachers' estimations were used rather than peer or self measures as teachers were considered to be more able to rate the physical strength of children reliably and may be more aware of pupils' relative strengths from physical education lessons.

2.2.2.9 *Cognitive Characteristics of children in different bullying roles.*

The cognitive abilities of children taking different roles in bullying have also been examined. Sutton et al (1999b) reported that during middle childhood ringleader Bullies had remarkably good theory of mind abilities, which they suggested enabled them to manipulate others more effectively. In addition, Björkqvist et al (2000) and Kaukiainen et al (1996; 1999) have reported a positive association between social intelligence and indirect aggression, but failed to find any such association between social intelligence and other forms of aggression in older groups. As younger children are less reliant on these sophisticated methods of bullying (Björkqvist et al 1992) it is uncertain how reliant very young Bullies may be on good theory of mind skills.

In addition, the executive functions of planning and inhibitory control were also examined. It was suggested that these skills would be advantageous in order to function effectively as a Bully, especially for indirect methods of bullying which may require planning and inhibiting your first response (e.g. to strike out at the Victim). However, as mentioned, younger children tend to favour direct methods of bullying which may be less planned and controlled than indirect bullying. Therefore they may not perform well on tasks assessing these abilities.

Theory of mind

Standard age appropriate measures of theory of mind were employed;

The *unexpected transfer task* – Sally & Anne (Baron-Cohen, Leslie & Frith 1985). The *deceptive box task* - Smarties task (Perner, Leekam & Wimmer 1987). A *second order false belief task* - Sally and Anne through the window (Riviere, personal communication). Each task was performed three times with slight variations each time in order that any findings would not be due to chance. Performance on these tasks has

been found to be highly correlated (e.g. Slaughter & Gopnik 1996; Taylor & Carlson 1997), so a composite score of theory of mind performance ranging from 0 (none correct) to 9 (all correct) was calculated. (See Appendix Eight for details of the materials used in the Sally and Anne tasks).

Deception Task – Sodian and Frith's (1992) Deception and co-operation tasks were employed (see Appendix Nine). The child was required to assist a confederate and deceive a competitor in order to win some stickers. The confederate and competitor tasks each had two versions: a one and two box version. Sodian and Frith's (1992) sabotage task was not used in this study as it was found in pilot testing that 4-5 year olds were performing at ceiling level on this task. Children were awarded a score based on their performance of the task ranging from 0 (none correct) to 4 (all 4 trials correct).

Executive function

Age appropriate measures of executive function were used, including the day-night task (Gerstadt, Hong & Diamond 1994) which assesses inhibitory control (see Appendix Ten) and the Tower of London (Shallice 1982) which assesses planning abilities (see Appendix Eleven).

The day-night task is a non-verbal stroop assessment. Children were asked to respond 'Day' or 'Night' to a series of cards. The control task involved learning this rule with two sets of cards of different abstract patterns. The experimental task involved inhibiting a response: saying 'Day' to a picture of the moon and responding 'Night' to a picture of the sun. Each individual was assigned a score on this task that was calculated as the percentage of correct responses on the experimental task.

The coding scheme for the Tower of London was based on that described by Welsh, Pennington and Grossier (1991). In their study six trials were given of each problem on the Tower of Hanoi. Scoring ranged from zero to six for each problem. If the individual correctly performed the task on the first trial he/she was awarded six points. The number of points decreased with the number of unsuccessful attempts. However, I decided that for some very young children, being unable to complete a task six times

may prove distressing. Therefore, this was reduced to three trials for each problem, leading to a scoring range of zero (unsuccessful) to three (successful on the first trial) for each problem. Children were presented with a series of up to 12 problems (ranging from 2 to 5 move tasks). If they were unable to complete two consecutive problems the assessment was discontinued. Therefore, the potential range of scores was from 0 (none correct) to 36 (all correct first attempt). Hughes (1998) used a similar scoring technique to rate performance on the Tower of London.

Verbal Abilities

The short form version of the British Picture Vocabulary Scale (Dunn, Dunn, Whetton & Pintilie 1982) was administered and scored according to the guidelines. This was included in the assessments as verbal ability has been found to relate to performance on theory of mind tasks.

2.2.2.10 Peer relationships of children in different bullying roles

As bullying occurs within the peer group, many researchers have examined the relationship between the role taken in bullying and sociometric status. Studies with older Victims have found that they are consistently rejected (e.g. Salmivalli et al 1996a), although the picture is less clear for Bullies (Monks & Smith 2000). However, this has not been examined in younger children.

Frederickson and Furnham (1998) have compared a variety of methods used by researchers to elicit sociometric status. These included measures that required the rating of all children in the class and others which involved the rating of fewer peers or limited nominations to same-sex peers. They report that, although there were similar proportions of children distributed across the status groups when using each measure, there was relatively poor agreement across measures of sociometric classification. They also report a cross-sex rating bias which they suggest is a reflection of the organisation of the peer groups of older children (in their sample 9-12 years); although younger children play with opposite gender classmates, few children in middle childhood and early adolescence play with others of the opposite gender.

Some researchers have asked children to rate all of their classmates in terms of how much they like/dislike them (e.g. Maassen, Akkermans & VanderLinden 1996). This method probably provides more detailed information on popularity than asking each child to name the three children they like the most and the three they like the least (Coie et al 1982). However, due to the complexity and length of the rating method, it was considered inappropriate to use with such a young sample in addition to the numerous other tasks they had been asked to complete. Therefore, it was decided that the Like Most / Like Least nomination procedure (Coie et al 1982) would provide sufficiently rich data. It provided a measure of social acceptance and social rejection, the sociometric status group to which the individual belonged and an indication of reciprocated liking (the number of reciprocated like most nominations).

2.2.2.11 *Family relationships of children in different bullying roles*

Smith and Myron-Wilson (1998) report differences in the family structure and family relationships of older Bullies and Victims. Therefore, in this study the family structure and attachment profiles of children were examined in relation to their role in bullying.

Children were asked to show “Who lives with you” using cards depicting male and female adults and children (see Appendix Twelve). It was piloted prior to use and it was found that most young children had no difficulty in completing the task.

In order to find out more about the relationships children had with their primary caregivers the Separation Anxiety Test Interview, or SAT (Klagsbrun & Bowlby 1976) was administered which gave an indication of attachment classification to primary caregivers. This method was chosen rather than the Main and Cassidy (1988) Separation-Reunion assessment as the SAT is quick and easy to administer and does not require inviting children and their parents to a laboratory for assessment.

Administration and coding was based on the Resnick (1993) system on which the author was trained. This coding and administration method was chosen because, although it was designed for use with older children, it could be slightly modified for use with younger children based on correspondence with Gary Resnick. In addition it enables

distinctions to be made, not only between secure, insecure avoidant and insecure preoccupied, but also at a finer level between subgroups of attachments. This was thought to be of interest as Myron-Wilson (1998), using the Resnick version of the SAT, reported that 7-10 year old Bullies and Victims displayed differences in attachment at the level of these subgroups.

The Hansberg questions were not included as this made the assessment very long. The Hansberg questions are a series of 15 questions to which the child is required to answer 'yes' or 'no'. Examples of these are 'Does he/she feel lonely?', 'Does he/she feel angry?', 'Does he/she feel like hiding away?'. Children were shown a series of six pictures depicting age appropriate separation situations using tracings of those used by Klagsbrun and Bowlby (1976) and Kaplan (1985) in order to overcome any biases of ethnicity and the dated look of the pictures (see Appendix Thirteen). The situations were;

1. The mother tucks the child in bed and leaves the room
2. Park scene; parents tell the child to run off and play for awhile. They want some time alone together to talk
3. Child's first day at school; moment of parting from parent
4. Parents go out for the evening leaving child at home
5. The parents go away for the weekend, leaving the child with the aunt and uncle.
6. Parents are going away for two weeks; prior to their departure they give the child a gift.

The interviews were recorded and transcribed verbatim and scored on nine attachment scales with the scores ranging from one to nine;

- 1) **Emotional openness**: the extent to which the child is able to express feelings, to show they are emotionally affected by the separation situation. High emotional openness indicates security of attachment.
- 2) **Dismissing/devaluing**: the extent to which the child values the importance of relationships and accepts vulnerability associated with the separation. High dismissal indicates insecurity.

- 3) **Self blame:** the child's perception of responsibility for the separation. A low self blame score indicates that the child is insecurely preoccupied with the attachment and is attributing blame unfairly.
- 4) **Resistance/withholding:** the extent to which the child resists talking about attachment issues by withholding information or by not responding fully to the interview questions. A low score on this scale indicates insecurity.
- 5) **Preoccupied anger:** the extent to which the child expresses anger during the interview. A low score indicates an inability to contain angry feelings and that the child has an insecure preoccupation with them which is generalised beyond the separation situation.
- 6) **Displacement of feelings:** the focus of the feelings given by the child. A secure child should be able to direct their feelings toward the attachment figure resulting in a high score on this scale. In contrast, an insecure child may be more likely to focus their feelings on other figures or objects within the situation.
- 7) **Pessimism/optimism:** the child's perception of the outcome of the separation. A secure child should be able to give an optimistic outlook indicating an ability to cope with temporary loss and look forward to a reunion with the attachment figure, resulting in a higher score on this scale.
- 8) **Coherence of transcript:** the extent to which the child gives succinct, relevant, clear and truthful responses to the interview questions. A secure child should be able to provide a coherent transcript, resulting in a high score on this scale.
- 9) **Solutions:** the child's solution to the separation situation. A high score indicates a constructive solution, a low score indicates an insecure destructive solution and an inability to cope with the separation.

The scores on these nine scales were used as a guide to classify the child's attachment relationship as insecure avoidant (DS), insecure preoccupied (E) and secure (F). These attachment profiles were further broken down on the basis of Resnick's Coding System (see Table One below).

Table One: The attachment relationship classifications on the Resnick SAT coding system.

Attachment profile	Subgroups of attachment
Avoidant (DS)	DS1 Dismissing DS2 Devaluing DS3 Restricted
Secure (F)	F1 Some setting-aside F2 Secure but restricted F3 Secure / freely valuing F4 Some preoccupation with attachment figures F5 Somewhat resentful / preoccupied
Resistant / Ambivalent (E)	E1 Passive E2 Angry / conflicted E3 Overwhelmed / preoccupied

Intercoder agreement was assessed on a subsample of the transcripts by the author and Gary Resnick. There was 85.71% agreement on overall classification [κ 0.72, $p < 0.05$]. Kappa was also calculated to examine agreement between subclassifications (i.e. Secure, Insecure Avoidant and Insecure Preoccupied/Enmeshed/Ambivalent). Kappa for Secure (F) was 0.72 ($p < 0.05$); kappa for Insecure Avoidant (DS) was 0.72 ($p < 0.05$) and kappa for Insecure Resistant/Ambivalent (E) was 1.00 ($p < 0.01$). [See Appendix Fifteen for further details].

2.2.2.12 Observations

Observations were made to provide a more objective examination of children's behaviour in the playground in terms of what they were doing and whom they were with. Observations were made of the children in the playground using an all or nothing time-sampling technique over 30 second intervals. Time sampling enables the observer to examine a wider range of behaviours than sampling actual frequencies. It is also possible to obtain separate and statistically independent variables and it provides a 'snapshot' of each child's behaviour over time (Smith 1985).

The observations were carried out each lunchtime and break-time for between 2 and 3 weeks until 20 observations (a total of 10 minutes of observations) were made of each child involved in the study. Observations were made in a set order using the class list of participating children. Once an individual had been observed the next child on the list was observed. If an individual was absent then the following child on the list was observed. The observational categories were based on those used by Pepler, Craig and Roberts (1998) and were refined further on the basis of pilot work. Observations were made for;

Rough & Tumble The child was involved in rough and tumble play with another. This has been distinguished from fighting on several criteria (Smith 1997). During rough and tumble play the children tend to be smiling, they are friends, one child may be deliberately disabling themselves, the individuals generally tend to stay together after the incident and they don't usually get hurt.

Fighting/Arguing The child was fighting or arguing with another

Organised Play Play which is structured around something intended for play. E.g. using a skipping rope for skipping; playing catch with a ball; playing football; playing hopscotch.

Unorganised Play Play which is not structured around an object intended for play, E.g. chasing; running; jumping; hopping. Games such as 'It' were also considered as unorganised.

Conversation The child was in conversation with another person(s). In order to be noted as conversation, there needs to be more than one person present (target plus other). This category includes; questions asked of target (even if not replied to); 'play talk' when the target takes on the voice of one of the play people only if another child is present and playing the game; instructions given by target during games; other forms of dialogue only if between the target and another and not simply the target child talking to him/her self or singing.

Doing Nothing The child was not exhibiting any of the other behaviours.

Watching others This takes the form of gazing at others rather than glancing at them. Therefore, to be noted as watching others the gaze must last for at least 5 second duration.

With adult The child was standing/talking or playing with an adult.

Alone The child was not with an adult or any individual/group.

With peers The child was involved with another peer/peers.

The individual was noted as exhibiting a behaviour if they were observed in the behaviour for 5 seconds or longer. The percentage of observation points in which each behaviour was observed was calculated for each individual. The sum of these observations for any individual could total over 100% as children could be observed exhibiting more than one behaviour during each 30 second observation period. Two observers (the author and Cheryl Blackadder) carried out the observations. Kappa was calculated in order to examine interobserver agreement over 16 minutes of observations. The overall kappa for observations between the two observers was 0.83, which was significantly greater than zero [$p < 0.01$]. It was concluded therefore that agreement was significantly better than chance. Kappa was also calculated for each observational category individually (see Table Two).

Table Two: Interobserver agreement

Observational category	Interobserver agreement (Kappa)
Rough and tumble play	1.00**
Fighting/arguing	1.00**
Organised play	1.00**
Unorganised play	0.74**
Conversation	1.00**
Doing nothing	0.17*
Watching others	0.85**
With adult	1.00**
Alone	0.82**
With peers	1.00**

* $p < 0.05$; ** $p < 0.01$

Table Two above indicates that the two observers showed high agreement in their observations of each of the observational categories except ‘doing nothing’ which showed low agreement and was not included in subsequent analyses.

2.3 Ethical Issues

2.3.1 Background

Because of the sensitive nature of the study and the age of the children it was necessary to carefully consider the ethical issues involved when designing and carrying out the study

2.3.2 Confidentiality

Confidentiality was assured for all of the tasks, and this was reiterated before the bullying roles task. Children were told, “What ever you tell me is private. I won’t tell anybody else what you say. I won’t tell your teacher or any of the children in your class and no one is going to get in trouble because of what you say”. The researcher made sure that the child understood what that meant by asking “Is that ok, do you understand?” If the child said yes, then the assessment began. If they were not sure or did not understand confidentiality was explained to them again.

Confidentiality of the entire participant group was ensured by the researcher to teachers, head-teachers and parents/guardians, stating that any publications which might arise from the research would not identify any of those involved.

2.3.3 Minimal risk

As the children involved in the study were young, it was considered appropriate for the children to get to know the researcher before any assessments were carried out in order that the children felt comfortable with her. Therefore, the researcher spent several days with the children in the classroom and in the playground prior to data collection, playing games and talking to them. Due to the age of the children the assessments chosen were age appropriate and designed to be fun, involving toys and cartoons. None of the tasks lasted over 15 minutes and they were carried out in a quiet area of the school, usually the library. Children were reassured by the researcher, “We’re going to play some games. They are good fun and aren’t tests, and there is no right or wrong answer”. Children were also asked in the classroom before each task if they wanted to play and were told what the task would involve, e.g. for the sally and anne task they were asked “Do you want to come and play with Sally and Anne. We’ve got to hide a marble for them”. The children were told “You don’t have to play the game if you don’t want to. If you don’t want to play the game any more we can stop.” If the child appeared distressed at any point the assessment was terminated and resumed later if the child wished to continue.

2.3.4 Consent

Consent was obtained from the head-teachers and class teachers involved. Letters were sent to parents/guardians of each child in the class involved describing the nature of the study and asking for them to reply if they did not wish their child to take part. Any child whose parent/guardian returned the letter did not participate in the study.

2.3.5 Submission to ethics committee

The study plan was given approval by Goldsmiths College Ethics Committee.

2.4 Data collection and Participants

2.4.1 Study One

Time of data collection:

Spring – Summer 1998

Participants:

19 children in a Reception class in south-east London. 11 girls and 8 boys, aged between 4 and 5 years (mean age 63.8m; SD 2.04) at the time of test 1.

2.4.2 Study Two

Time of data collection:

Spring – Summer 1999

A mainly cross-sectional design was employed for the purposes of this study in order that children in each of the bullying roles could be compared on the various factors mentioned above. A longitudinal aspect of the study involved a follow up 3.5 – 4 months later in order to examine stability of the roles taken in bullying.

All of the assessments were administered in a set order in Study Two; BPVS, Definitions of bullying, Theory of mind, Executive function, SAT, Family composition, Sociometric status, Bullying Role and Response to Victimisation, Deception.

Participants:

104 children aged between 4 and 6 years (Mean age 65 months, SD = 8.4) from 2 Reception Classes and 2 Year One Classes in 4 Primary schools in London. 57% (N=59) were female and 43% (N=45) were male. Ethnicity: 50 (48.1%) Afro-Caribbean; 18 (17.3%) Caucasian; 25 (24%) Asian; 8 (7.7%) Southeast Asian; 3 (2.9%) Other.

Socioeconomic Status

Although this was not assessed directly the school catchment areas for Study One and Study Two were lower to middle class.

2.5 Statistical analyses and data assumptions

SPSS for Windows Version 9.0 was the computer package used for data analyses. Preliminary data exploration revealed that not all of the variables met the assumptions for parametric analyses. Normality of distribution was not met in all cases, however sample sizes were reasonable. In these cases, additional non-parametric tests were run as suggested by Bryman and Cramer (1999) and did not produce different results. In addition transforming non-normal scores closer to normality did not alter the results of parametric statistical tests (also suggested by Bryman & Cramer as a desirable comparison). In these cases both Howell (1996) and Bryman and Cramer (1999) remark on the robustness of parametric tests even when some of the assumptions are not met.

“The argument over the value of distribution-free tests has gone on for many years...Many people believe that for most cases, parametric tests are sufficiently robust to make distribution-free tests unnecessary. Others, however, believe just as strongly in the unsuitability of parametric tests and the overwhelming superiority of the distribution-free approach.”

(Howell 1996, p 609)

Howell notes that those individuals who are in favour of using parametric tests in every case argue that the assumptions normally cited as being necessary for a parametric test are too restrictive and that parametric tests are remarkably unaffected by violations of normality. In addition, the relative power of parametric tests compared with their nonparametric counterparts is such that parametric tests were employed in this research to examine the data.

Chapter Three: Measuring Bullying in this sample

Overview of Chapter three

Most research into bullying at school has focussed on children aged eight years and over (e.g. Whitney & Smith 1993). This chapter describes a method developed to examine the roles taken in bullying situations by children aged between four and six years. The roles taken by children in bullying are examined in relation to those identified in middle childhood (Sutton & Smith 1999) and adolescence (e.g. Salmivalli et al 1996a). The methodology developed also enables the bullying strategies used by children in younger age groups to be investigated. In addition, the stability of the roles taken in bullying over a 3.5 - 4 month period are assessed.

3.1 Introduction

The widespread use of questionnaires (e.g. Olweus, 1993a; Whitney & Smith, 1993) may have been one reason why research on bullying has largely focussed on children aged 8 years and over. Some research has indicated that bullying is a problem in younger groups (Smith & Levan 1995; Crick 1996; 1997; Ladd & Ladd 1998; Alsaker & Perren 1999), that it can take several forms at that age, and may be reported quite frequently. However, this age group remains relatively understudied, despite these indications that the origins of bullying and victimisation start in the earliest school years.

3.1.1 Types

There are developmental trends in bullying and victimisation. Björkqvist et al (1992) describe a developmental pathway of aggression, with younger children engaging in predominately physical forms of aggression, and older children engaging in verbal aggression and indirect aggression, although they did not look at children younger than 8 years old. These trends have also been found in bullying (Rivers & Smith 1994). Crick et al (1997; 1999) have reported gender differences in the types of aggression used by and experienced by boys and girls. They found that boys were more likely to use physical aggression and were also more likely to be the victims of physical

aggression. In contrast, girls were more likely to be the victims of relational aggression and were more likely to be relationally aggressive themselves.

3.1.2 Roles

Recent research into bullying has broadened its focus to examine it as a group process rather than a dyadic interaction between the bully and victim. Salmivalli et al (1996a) identified six Participant Roles taken by children in bullying situations. In addition to the Bully and the Victim, Salmivalli et al (1996a) suggested that other children in the peer group take more peripheral roles in bullying, which may be just as important in understanding the social processes involved; Assistants, Reinforcers, Defenders and Outsiders (described fully in Chapter One). Salmivalli et al (1996a; 1998) examined these roles in Finnish students between the ages of 12 and 15 years. Sutton and Smith (1999) successfully identified these roles in a younger sample of children in the UK aged between 7 and 10 years. Both Salmivalli et al (1996a) and Sutton and Smith (1999) reported similar gender differences, with boys more likely to be Bullies and girls more likely to be Defenders. These roles have not been examined in children under the age of 7 years.

3.1.3 Stability of bullying and victimisation

By middle childhood, the roles of bully and of victim are moderately stable (Egan, Monson & Perry 1999; Hodges and Perry 1999; Boulton and Smith 1994; Boulton and Underwood 1992). So far as the Participant Roles are concerned, Salmivalli et al (1998) reported moderate stability of the bullying roles over a 2 year period during adolescence. Stability of peer evaluated behaviour over a two year interval; Bullying $r = 0.54, p < 0.001$; Assisting bully $r = 0.53, p < 0.001$; Reinforcing bully $r = 0.57, p < 0.001$; Defending victim $r = 0.37, p < 0.001$; Staying outside $r = 0.43, p < 0.001$; Victimisation $r = 0.49, p < 0.001$ (Salmivalli et al 1998).

A few studies have been carried out on stability in younger children. Ladd and Burgess (1999) report stability of aggressive behaviour in 5-7 year olds. However, the research examining the stability of victimisation at this age, suggests that victim status may not be as stable an experience for young children as it is in groups of older children.

Kochenderfer and Ladd (1996) found that a substantial proportion of children in kindergarten were exposed to victimisation. However, for most of these children bullying was not a stable experience; only 9% remained as Victims over a school term. Perry et al (1990) had suggested earlier that when aggressive children enter a new peer group (e.g. starting school) they 'try out' a variety of targets. Then, learning from these children's responses they limit their aggression to fewer children. Thus, victim status becomes more stable in later school years.

However, Crick et al (1999) suggested that victimisation is a somewhat stable experience for 3 – 5 year old children. This discrepancy in findings may be a consequence of the different methodologies employed; Kochenderfer and Ladd used a method of self-reporting by children using four items on the Peer Support Scale which asks about physical bullying, verbal bullying and indirect bullying, whereas Crick et al relied on teacher reports. In addition, the interval over which stability was examined varied between the 2 studies; Kochenderfer and Ladd examined stability from the autumn term to spring, however, Crick et al's assessment of stability was over a much shorter interval of one month.

3.1.4 Response to victimisation

A few studies have reported on the actual behavioural strategies used by victims of bullying. Smith, Madsen and Moody (1999) and Smith, Shu and Madsen (in press) have implicated coping strategies in victimisation. They have found evidence which suggests that the decrease in the number of victims with age is related to age improvements in the use of coping strategies. They found that older children use more successful coping strategies than their younger counterparts. In addition, the finding that older victims have more adjustment problems than younger victims suggests that coping strategies play an important role in the age-related decrease in victimisation. The types of coping strategies used appear to be age related. Kochenderfer and Ladd (1997) in a study of 5 to 6 year olds' coping found that 'telling a teacher' and having 'a friend help' were used more by pupils whose victimisation scores decreased over time. However, Salmivalli et al (1996b) found that 12-13 year old Finnish pupils rated nonchalance as being a more constructive response to bullying than counter aggression.

3.1.5 General aims of studies 1 and 2

Although much evidence supports the model first proposed by Perry et al (1990), that aggressive children try out possible targets, and hence victim status starts as fluid but becomes more stable with age, the crucial issue of stability of victim status on starting school is not resolved. In particular, Crick et al. (1999) reported high stability of victim status, based on teacher reports.

Aim One; I aimed to assess the nature of bullying in a young sample starting school (aged 4 – 6 years). I was interested in types of bullying, gender differences, and especially in stability of victim status, but using peer nominations rather than teacher or self reports; stability was examined over a short time period of 1 week (effectively, test-retest reliability), and over longer time periods of 2 months and 3.5 to 4 months.

Aim Two; besides Bully and Victim status, an assessment of the Participant Roles of Salmivalli et al (1996a) was made in order to see if the additional roles (Assistant, Reinforcer, Defender, Outsider) could be identified in the early school years; and if so, whether these roles were stable.

Study 1 explored the assessment of the participant roles, and their stability, in an in-depth study of one school class. It was hypothesised that Bullies would be a moderately stable group with the same individuals identified as bullying others over time. It was predicted that victimisation would be an unstable experience for most children at this age as for most children victimisation would be a transient experience, and for only a few would it continue for longer periods.

Study 2 examined issues of role stability on a larger sample. It also utilised observational techniques to examine children's playground behaviour in relation to the role taken in bullying. In addition, the strategies used by children to cope with bullying were also investigated.

3.2 **Study One**

3.2.1 Method

3.2.1.1 *Participants*

19 children in a reception class in south-east London. 11 girls and 8 boys, aged between 4 and 5 years (mean age 63.8 months; SD 2.04) at the time of test 1.

3.2.1.2 *Assessments*

An individual interview technique was developed using cartoons to illustrate the Participant Roles and Bullying Strategies (physical, verbal, indirect relational and direct relational). Children were shown 2 cartoons:

Cartoon One:

The first cartoon illustrated different ways in which children can hurt one another; three were direct, face-to-face ways: physical (hitting, kicking or pushing someone); verbal (calling someone nasty names); and relational (social exclusion, the example being; a child saying to another “you can’t play with us”); one was indirect and relational (rumour spreading) (see Appendix One). The children were asked what they thought was happening in each illustration and this was clarified for them. For example they were shown the cartoon of physical victimisation and asked: “What do you think is happening here?” The child might reply “He’s hitting him”. The interviewer continued: “That’s right. That person is hitting the other one, or they might push them or kick them. Does anyone in your class do that?” They were prompted with the questions “Anyone else?” until they said that no one else behaved in that way; they were then asked “Do you do that?”

This method allowed for examination of the different styles of aggression used as children could receive nominations for the different forms of aggressive behaviour.

Cartoon Two:

The second cartoon depicted the different Participant Roles of Reinforcer, Assistant, Defender, Outsider, Victim and Bully (see Appendix Two). The children were shown the cartoon and asked what they thought was happening in the picture. They were then

told “Remember that we were just talking about different ways in which some children are naughty? In this picture this person is hitting another one, but they could also be telling them that they can’t play, calling them nasty names or telling nasty stories about them.” They were then asked what each person was doing, except for bully, which was already investigated by the first cartoon. This was then expanded in turn for each role. For example for the picture of the defender the child was asked: “What is this person doing?” The child might reply “Telling the teacher”. This was then expanded by the interviewer saying “Yes, or they might help the person being hurt or tell those children to stop hurting him.” The children were then asked to nominate themselves or their peers as taking these roles in bullying.

Scoring: Peer nomination method

The mean number of nominations for each role were standardised (mean score = 0, s.d. = 1). Children were assigned to the role which they scored highest on. However, if a child’s highest and second highest scores were within 0.1 s.d. of each other they were assigned a dual role. Due to very low levels of nominations for Assistant, Outsider and Reinforcer these were not included when children were assigned to roles.

Scoring: Self nomination method

The child was assigned to the role to which they nominated themselves. If they self-nominated more than one role they were assigned to a dual role.

3.2.1.3 Procedure

Children were seen individually, at 3 time points; Weeks 1, 2 and 10, to assess stability of roles. A comparison between Weeks 1 and 2 was made to give test-retest reliability; and between Weeks 1 and 10 to assess stability over a one school-term period.

3.2.2 Results

3.2.2.1 Proportions of nominations for each role

The numbers of peer nominations were summed across the participants and over all three time points. Most nominations were given for Bully (26.1%), Victim (24.5%) and

Defender (22.2%); relatively few were given for Assistant (7.2%), Outsider (12.6%) and Reinforcer (7.4%).

3.2.2.2 *Distribution of roles by peer nomination*

The mean percentage of children assigned to each role by peer nomination (summing over all three time points) were; Defender 26.3%; Victim 22.8%; Bully 19.3%; Defender/Victim 7.0%; Bully/Victim 1.8%. 22.8% of children could not be assigned to a Participant Role as they did not score above the mean on any role.

3.2.2.3 *Self nominations for roles*

The mean percentage of children giving self nominations for each of the roles (summing over the three time points) were; Defender 58.7%; Victim 40.4%; Outsider 19.3%; Reinforcer 8.8%; Bully 5.3%; Assistant 1.8%. 19.3% of children did not nominate themselves as taking any role in bullying. Note that most children nominated themselves as taking more than one role in bullying, so the total does not equal 100.

3.2.2.4 *Test-Retest reliability*

Correlations were calculated to examine the relationship between peer nominations for each child in each role, in Weeks 1 and 2. Reliability was found for Reinforcer [$r = 0.67, p < 0.01$], Bully [$r = 0.69, p < 0.01$] and Victim [$r = 0.45, p = 0.06$] nominations, indicating moderate reliability for the nomination of these roles. The reliability of nominations for Defender [$r = 0.29, n.s.$], Assistant [$r = 0.25, n.s.$] and Outsider [$r = 0.04, n.s.$] was low (based on the criteria suggested by Cohen & Holliday 1982).

3.2.2.5 *Stability over time.*

Stability was assessed over a period of 9 weeks. High stability was found for Bully [$r = 0.66, p < 0.01$] and Reinforcer [$r = 0.82, p < 0.01$]. However, stability was low for Defender [$r = 0.26, n.s.$], Assistant [$r = 0.11, n.s.$], Victim [$r = -0.16, n.s.$] and Outsider [$r = -0.17, n.s.$].

3.2.2.6 *Correlations between the roles*

Correlations were carried out on the total number of peer nominations each individual received for each role (over all three time periods). Children nominated as Bullies were also likely to be nominated as Reinforcers [$r = 0.70, p < 0.01$] and Assistants [$r = 0.75, p < 0.01$]. In addition, children nominated as Reinforcers were also likely to be nominated as Assistants [$r = 0.64, p < 0.01$]. Children nominated as Victims were also likely to be nominated as Defenders [$r = 0.47, p < 0.05$] and Reinforcers [$r = 0.47, p < 0.05$].

3.2.2.7 *Types of bullying*

Children were nominated for all the types of bullying; 26.3% were nominated as using social exclusion, 21.1% as using physical bullying, 21.1% as using verbal bullying and 15.8% as spreading rumours.

3.2.3 Discussion

The use of cartoons was very successful for asking children about bullying within their class. It was a task that the children could do without difficulty and took about 15 minutes to administer. The children did not nominate many peers for the less prominent roles, Assistant, Reinforcer and Outsider. However, the children did appear to understand the nature of these roles, especially Assistant and Reinforcer, as these were found to correlate highly with Bully nominations. Test-retest reliability was found to be high for Bully, Reinforcer and Victim. Over a one term period, stability was found for only Bully and Reinforcer nominations. However, no children were assigned to the role of Reinforcer and nominations for this role were very low. Only 7.4% of nominations were for the role of Reinforcer. Although nominations for Reinforcer were reliable over a week and stable over a term, it does not appear to be a clearly defined role at this age. Due to the small N any gender differences in the roles could not be investigated.

3.3 Study Two

The findings from Study One suggested that the technique described could be used with a larger sample in order to examine gender differences and to provide a sample from which more generalised conclusions could be drawn. Study One also suggested that a

modified version of the Participant Roles interview would be advisable; due to the low levels of nominations for Reinforcer, Assistant and Outsider, these were not included in Study Two. The interview only involved one cartoon (Cartoon 1) which was used to describe the roles of Bully, Victim and Defender in 4 different bullying situations. The response taken by the children to victimisation was also examined. In addition to child interviews, teacher questionnaires and observations were made of children's behaviour in the playground.

3.3.1 Method

3.3.1.1 *Participants*

104 children aged between 4 and 6 years (mean age 65 months, SD = 8.4) from 2 reception classes and 2 grade one classes in 4 primary schools in London (different from the school in Study 1); the school catchment areas were lower to middle class. 57% (N=59) were female and 43% (N=45) were male. 48.1% (N=50) Afro-Caribbean; 17.3% (N=18) Caucasian; 24% (N=25) Asian; 7.7% (N=8) Southeast Asian; 2.9% (N=3) Other. Class teachers (N=4); the two Year One teachers were female, one Reception class teacher was male, the other female.

3.3.1.2 *Assessments*

- Role assessment

A modified version of the individual interview technique was developed on the basis of results from Study One. The children were shown cartoon 1 depicting the four bullying situations – social exclusion, physical bullying, verbal bullying and rumour spreading - and were asked what they thought was happening in each illustration. This was expanded for them. They were then asked to nominate those classmates, including themselves, who carried out these behaviours in the way described in Study One. For those who were bullied in these ways, the child would be asked, for example using the cartoon of physical bullying: “You told me that some people in your class hit, kick or push other children. Do they do it to anyone in your class?” If the child said yes they were asked: “Who do they do it to? Who in your class is like this person in the picture, the one who is being hit, kicked or pushed?” They were prompted by asking “Anyone else?” until they said no. They were then asked “What about you, does anyone in your

class do that to you?” Finally, they were asked to nominate self/peers for defending others in these situations. The child was asked: “If anyone in your class saw any of these things happening to another person, do you think they would do anything about it? Do you think anyone in your class would tell an adult about it or tell that person (the bully) to stop doing that or look after that person (the victim) afterwards?” If the child said yes, they were asked: “Who would do that?”; they were prompted by being asked “Anyone else?” until they said no. They were then asked “Would you do that?” In this way children nominated their peers or themselves for taking the role of Bully, Victim or Defender in each of the bullying situations.

Teachers were also given this in a questionnaire format in order to nominate their pupils for taking different roles in bullying situations (see Appendix Three). Once again the 4 different bullying situations were described, for example for physical bullying teachers were asked “Do any of the children in your class hit/kick or push others? If so, who?” For physical victimisation the teachers were asked “Are any children in your class hit/kicked or pushed by others? If so, who?” For defending, teachers were asked “If any of the children in your class saw these things happening, would any of them tell an adult, stand up for the Victim or ask the Bullies to stop? If so, who?” Teachers were given a large space underneath each question in order to fill in the names of pupils fulfilling each role. They were told to add as many additional sheets as necessary.

Scoring:

The number of peers who nominated a child for each role was summed. The scores for Bully, Victim and Defender were then standardised across each class (mean = 0, s.d. = 1). Children were assigned to the role for which they scored highest. However, if the difference between their first and second highest scores was less than 0.1, they were assigned to a dual role. If the child did not score above the mean (0) on any role, then he/she was assigned to the role of Bystander. Bystander was introduced as a new term in this study in the place of Outsider as Bystander was a more general term to describe children who were not taking an active role in bullying. This is in contrast with Outsiders who actively ignore the bullying situation (Salmivalli et al 1996a).

- Response to victimisation

Children were then asked to identify the responses to victimisation by those they had nominated as victims and what they themselves would do even if they did not self-nominate as a victim. The children were shown a sheet depicting 6 responses to victimisation (as developed by Kochenderfer & Ladd 1997). These were (1) fight back; (2) walk away; (3) get a friend to help; (4) cry; (5) give something up to the bully; (6) tell an adult. The experimenter said “You know how we were talking about how children can be naughty to other children in all of those different ways? I’m going to show you some pictures about what some children do when someone is being naughty to them and I’d like you to tell me which one you think you would do.” The experimenter then read out each of the descriptions while pointing to the relevant cartoon (see Appendix Six). They then said “Which one would you do if someone was being naughty to you?” If the child gave more than one strategy they were asked “Which one would you do most of the time?” The child was then asked to identify the response taken by those they had identified as victims “You remember that you said that X was hit/called names/had nasty stories told about them/wasn’t allowed to play? What does he/she do when that happens?” Again, if they gave more than one response they were asked “What does he/she do most of the time”.

Scoring:

Peer nominated responses to victimisation by Victims; children received a score for each of the six illustrated response strategies, these scores were calculated by adding the nominations received for each strategy and dividing by the number of victimisation nominations.

For example, if a child received 3 nominations for ‘walks away’ and 4 nominations for ‘has a friend help’ (i.e. a total of 7 victimisation nominations), the child would receive strategy scores of 0.43 for ‘walks away’ and 0.57 for ‘has a friend help’, and zero for each of the four other response categories. These proportion scores ranged from 0 to 1 for each type of response strategy. They were then normalised with an arcsine squareroot transformation prior to analysis (Kochenderfer & Ladd 1997).

- Observations in the Playground

Observations were made of the children in the playground by the author and Cheryl Blackadder using all or none time-sampling technique over 30 second intervals. The observations were carried out each lunchtime and break-time for between 2 and 3 weeks until 20 observations (a total of 10 minutes of observations) were made of each child involved in the study. One child was not observed in the playground as she was not allowed outside for medical reasons. The observational categories were based on those used by Pepler, Craig and Roberts (1998) and were refined further on the basis of pilot work. Observations were made for;

Rough and Tumble; Fighting/Arguing; Organised Play; Unorganised Play; Conversation; Doing Nothing; Watching others; With adult; Alone; With peers. Each of these categories are described in more detail in section 2.2.2.12.

The individual was noted as exhibiting a behaviour if they were observed in the behaviour for 5 seconds or longer. The percentage of observation points spent in each behaviour was calculated for each individual. The sum of these observations for any individual could total over 100% as children could be observed in more than one situation in each 30 second observation period. Kappa was calculated in order to examine interobserver agreement over 16 minutes of observations. The overall kappa for observations between the two observers was 0.83, which was significantly greater than zero [$p < 0.01$]. It was concluded therefore that agreement was significantly better than chance. Kappa was also calculated for each observational category individually. Interobserver agreement was high for each of the observational categories (ranging from 0.74 for 'unorganised play' to 1.00 for 'conversation') except 'doing nothing' which was not included in further analyses as a result (see Chapter Two for full details of interobserver agreement). The results regarding who children spent their time with (with adult, with peers or alone) will not be examined in this chapter, but will be discussed in Chapter Seven.

3.3.1.3 Procedure

Each child was seen individually in a quiet room in the school. The role assessment was administered twice, between 3 1/2 and 4 months apart (mean 112 days interval). 2

children were not included in the retest as they had left the schools in the interval. Teachers were given the roles questionnaire at the first assessment time point only.

3.3.2 Results

3.3.2.1 *Distribution of roles, and gender differences*

The distribution of roles, and gender differences in these, from peer, teacher and self nominations were examined.

(a) Peer nominations: Summing over all participants at time 1, the distribution of roles was: Bystander 29.8%; Bully 25.0%; Victim 22.1 %; Defender 16.3%; Defender/Victim 4.8%; Bully/Victim 1.9%. Due to the small N for Bully/Victim and Defender/Victim, these were not included in subsequent analyses.

There were significant gender differences in the distribution of roles at time 1 [$\chi^2(3) = 26.91, p < 0.01$]; more girls than boys were assigned to the roles of Defender (22% vs. 9%) or Victim (32% vs. 9%) and more boys than girls to the role of Bully (49% vs. 7%).

(b) Teacher nominations: The distribution of roles from the teacher nominations was Bystander 56.7%; Bully 16.3%; Defender 11.5%; Bully/Victim 10.6%; Bully/Defender 2.9%; Victim 1.9%.

Due to the low N in the Bully/Defender group and the Victim group these were not included in further analyses. Chi square revealed no significant differences in the roles taken by boys and girls according to their teachers [$\chi^2(3) = 4.47, n.s.$].

(c) Self nominations: The largest percentage of children nominated themselves as acting as Defenders (77%), followed by those who self identified as Victims (74%); few identified themselves as a Bully (5%). The distribution of roles from self nominations was Defender/Victim 55%; Defender 19%; Victim 16%; Bystander 5%; Bully/Victim/Defender 2%; Bully 1%; Bully/Victim 1%; Bully/Defender 1%.

Due to the small number of children self nominating as Bullies, this role was not included in subsequent analyses.

Chi square analyses revealed no significant differences between boys and girls in whether they nominated themselves as Victims [$\chi^2(1) = 0.70$, n.s.] or Defenders [$\chi^2(1) = 0.28$, n.s.].

3.3.2.2 *Types of bullying and being victimised*

The types of bullying children were nominated by peers as using and the forms of bullying they were nominated by peers as experiencing were then examined.

(a) **Bullying nominations:** The largest percentage of bullying nominations were received for social exclusion (31.7%) and physical bullying (28.0%), followed by verbal bullying (22.4%); the least nominated form of bullying was rumour spreading (17.9%).

The distribution of nominations received for bullying was examined separately for boys and for girls (see Table Three). Boys were most likely to be nominated for bullying using physical methods, followed by social exclusion, verbal bullying and rumour spreading. Boys received significantly more nominations for physical bullying than for rumour spreading [$t(44) = -4.40$, $p < 0.01$]; for social exclusion [$t(44) = -2.84$, $p < 0.01$]; or for verbal bullying [$t(44) = 4.22$, $p < 0.01$]. Boys also received significantly more nominations for bullying by social exclusion than for bullying by rumour spreading [$t(44) = -2.83$, $p < 0.01$].

Girls received the most bullying nominations for social exclusion, followed by verbal bullying and rumour spreading. They received the fewest nominations for physical bullying. Repeated measures t-tests revealed that girls received significantly more nominations for social exclusion than for physical bullying [$t(58) = 6.38$, $p < 0.01$]; for rumour spreading [$t(58) = -3.50$, $p < 0.01$] or for verbal bullying [$t(58) = 3.09$, $p < 0.01$]. Girls also received significantly more nominations for verbal bullying than for physical bullying [$t(58) = -2.85$, $p < 0.01$].

(b) **being victimised nominations:** The largest percentage of nominations for being victimised were for physical victimisation (34.4%), followed by verbal victimisation

(27.7%) and social exclusion (21.3%); the fewest nominations were received for victimisation by rumour spreading (16.6%).

The distribution of nominations received for being victimised were examined separately for boys and girls (see Table Three). The pattern was very similar for each gender. Both boys and girls received most nominations for victimisation by physical methods, followed by verbal victimisation and social exclusion. Both genders received fewest nominations for victimisation by rumour spreading. Girls received significantly more nominations for physical victimisation than victimisation by rumour spreading [$t(58) = 5.59, p < 0.01$]; or victimisation by social exclusion [$t(58) = 2.77, p < 0.01$]. They also received significantly fewer nominations for victimisation by rumour spreading than verbal victimisation [$t(58) = -4.34, p < 0.01$] or victimisation by social exclusion [$t(58) = -2.28, p < 0.05$]. Boys received significantly more nominations for physical victimisation than victimisation by rumour spreading [$t(44) = 4.64, p < 0.01$]; victimisation by social exclusion [$t(44) = 3.38, p < 0.01$]; or verbal victimisation [$t(44) = 2.28, p < 0.05$]. Boys also received significant more nominations for verbal victimisation than victimisation by rumour spreading [$t(44) = -2.57, p < 0.05$] or victimisation by social exclusion [$t(44) = -2.20, p < 0.05$].

Table Three: Mean number of nominations for each style of bullying and victimisation received at time one by boys and girls (Standard deviations in parenthesis).

	Direct Relational	Physical	Verbal	Indirect Relational
Bullying: Male	2.27 (2.24)	3.18 (3.20)	1.91 (1.87)	1.49 (1.41)
Bullying: Female	1.51 (1.66)	0.44 (0.86)	0.83 (1.15)	0.69 (0.81)
Victimisation: Male	0.78 (1.00)	1.58 (1.18)	1.09 (0.93)	0.71 (0.73)
Victimisation: Female	1.32 (1.41)	1.90 (1.34)	1.66 (1.24)	0.95 (0.99)

3.3.2.3 *Stability of roles*

The distribution of roles at time 2 was Bystander 33.7%; Defender 26.9%; Bully 22.1%; Victim 13.5%; Bully/Defender 1.0%. Chi square tests found no significant differences between the distribution of roles at the two time points [$\chi^2(3) = 4.36$, n.s.]. The stability of roles was examined using the peer nomination data. The proportion of children assigned to each of the roles at time one, who remained in these roles at time two, was: Bullies 60%; Defenders 44%; Bystanders 45%; Victims 13%. The percentage of the sample found to be in the same role at both time points was also examined; this was Bullies 15%; Bystanders 13%, Defenders 7%, and Victims 3%.

Besides examining stability in roles to which the children had been assigned on the basis of peer nominations, Pearsons correlations for the number of nominations a child received for each role, at time one and time two were calculated; this was high for Bully [$r = 0.78$, $p < 0.01$], moderate for Defender [$r = 0.38$, $p > 0.01$] and low for Victim [$r = 0.19$, n.s.].

Multiple stepwise regressions were performed to examine the predictors of peer nominations for bullying, victimisation and defending after an interval of 3.5 to 4 months. The list of variables entered and the results are displayed in Appendix Fourteen. It was found that initial bully nominations predicted 68% of the variance in later bullying nominations, suggesting high stability of nominations for bullying. Initial nominations for victim did not significantly explain any of the variance in later victim nominations, suggesting low stability of nominations for victim. Initial nominations for defender significantly predicted 25% of the variance in later nominations for defender, which suggests moderate stability of defender nominations.

3.3.2.4 *Response to victimisation*

Response to victimisation was only examined for those children who were assigned to the role of Victim by their peers, i.e. only those who had the need to respond to victimisation.

As Table Four below illustrates, the most common strategy reported as being used by Victims was to tell an adult, followed by fighting back, walking away, crying, getting a friend to help and giving something up to the bully. Related samples t-tests revealed that Victims received a significantly higher score for telling an adult when they were victimised than getting a friend to help [$t(22) = -5.68, p < 0.01$], crying [$t(22) = -5.81, p < 0.01$], fighting back [$t(22) = -4.02, p < 0.01$], giving something up to the bully [$t(22) = -6.26, p < 0.01$] and walking away [$t(22) = 5.28, p < 0.01$].

Unrelated samples t-tests were performed in order to examine whether there were any significant differences in the coping strategies used by male and female Victims. There was no significant difference by gender on the score received for getting a friend to help [$t(21) = 0.83, n.s.$]; crying [$t(21) = 0.91, n.s.$]; fighting back [$t(3.03) = -1.72, n.s.$]; giving something up to the bully [$t(21) = 0.45, n.s.$]. However, female Victims were significantly more likely to walk away from bullies than male Victims [$t(18) = 2.23, p < 0.05$].

Table Four: Mean response strategy scores received by peer nominated Victims.

Response strategy	Mean	Standard Deviation
Cry	0.05	0.12
Get a friend to help	0.05	0.12
Give something up	0.01	0.07
Tell an adult	0.83	0.61
Walk away	0.07	0.17
Fight back	0.13	0.35

3.3.2.5 Frequency of each observed category

Mean percentage of observation time points in which each behaviour was observed; Conversation 73.25% (s.d. 15.49); Unorganised Play 25.66% (s.d. 14.44); Watching others 15.25% (s.d. 11.65); Organised Play 15.15% (s.d. 13.94); Rough and tumble play 5.70% (s.d. 8.25); Fighting/arguing 4.98% (s.d. 7.98).

3.3.2.6 Gender differences in observed behaviour

Unrelated samples t tests revealed only one significant difference between boys and girls in observed behaviour. Girls spent significantly more observation points in conversation with others than boys [$t(99) = 3.97, p < 0.01$]. Girls spent an average of 78.26% (s.d. 13.62) of observation points in conversation, compared with boys who spent an average of 66.75% (s.d. 15.47) of observation points in conversation.

3.3.2.7 Differences in observations by bullying role

a) peer nominated role

One-way ANOVAs were performed to examine whether there were any significant differences between the observed behaviour in the playground of children assigned to the different bullying roles on the basis of peer nominated bullying role. The independent variable was the peer nominated role in bullying (bully, victim, defender or bystander) and the dependent variables were the percentages of observations spent in each of the six categories. There was a significant difference between the roles in time spent in conversation [$F(3, 90) = 5.91, p < 0.01$]. Mean percentage of observations spent in conversation; Bully 70.00% (s.d. 14.20); Victim 81.39% (s.d. 11.74); Defender 77.00% (s.d. 16.86); Bystander 65.66% (s.d. 14.91). Tukey HSD post hoc tests revealed that Victims spent significantly more time in conversation than Bullies ($p < 0.05$) and Bystanders ($p < 0.01$). There was a significant difference between the roles in time spent in organised play [$F(3, 90) = 2.71, p = 0.05$]. Although Tukey HSD post hoc tests revealed no significant differences between each of the peer nominated bullying roles. Mean percentage of observations spent in organised play; Bully 21.80% (s.d. 17.05); Victim 11.74% (s.d. 10.11); Defender 12.94% (s.d. 11.21); Bystander 13.52% (s.d. 14.33). No other differences were significant.

Correlations were performed between the continuous measures of bully, victim and defender nominations and the amount of time spent in each behaviour in order to examine the extent to which bullying, victimisation and defending related to behaviour in the playground. Victimisation nominations correlated significantly and positively with conversation [$r = 0.29, p < 0.01$]. Victim nominations correlated negatively with watching others [$r = -0.23, p < 0.05$]. Bully nominations correlated positively with rough

and tumble [$r = 0.28, p < 0.01$] and organised play [$r = 0.20, p < 0.05$]. Defender nominations correlated positively with conversation [$r = 0.38, p < 0.01$]. Defender nominations correlated negatively with watching others [$r = -0.21, p < 0.05$].

b) teacher nominated role

One-way ANOVAs were performed in order to examine whether teacher nominated bullying roles differed in observed behaviour. The independent variable was the teacher nominated role (bully, defender, bully/victim or bystander) and the dependent variables were the percentage of observations for each of the six observation categories. It was found that there was a significant difference between teacher nominated roles in time spent watching others [$F(3, 92) = 2.93, p < 0.05$]. Percentage of observations spent watching others; Bully 15.59% (s.d. 7.87); Defender 9.50% (s.d. 7.38); Bystander 17.63% (s.d. 13.49); Bully/Victim 9.00% (s.d. 6.18). None of the Tukey HSD post hoc tests were significant.

There was no overall significant difference in the amount of time spent in rough and tumble play [$F(3, 92) = 2.55, p = 0.06$]. Mean percentage of observations spent in rough and tumble play; Bullies 5.06% (s.d. 7.81); Defender 1.72% (s.d. 4.42); Bystander 5.88% (s.d. 8.26); Bully/Victim 10.91% (s.d. 10.20). Post hoc Tukey HSD tests revealed Bully/Victims spent significantly more time in rough and tumble play than Defenders ($p < 0.05$). Howell (1992) advocates the use of multiple comparisons (either post-hoc or apriori) even when the overall F is not significant.

‘...the hypotheses tested by the overall test and a multiple-comparison test are quite different, with quite different levels of power. For example, the overall F actually distributes differences among groups across the number of degrees of freedom for groups. This has the effect of diluting the overall F in the situation where several group means are equal to each other but different from some other mean.’

(Howell 1992, p 338)

There were no other significant differences between the teacher nominated bullying roles in terms of observed behaviour.

c) self nominated role

Unrelated samples t-tests revealed that there were no observable differences between children who self nominated as Victims and those who did not. Nor were there any significant differences between children who self nominated as Defenders and those who did not self nominate as Defenders.

3.3.3 Discussion

3.3.3.1 Study One

Study One indicated that young children do nominate their peers for bullying, being victimised and acting in a prosocial way. They can reliably nominate their peers for aggressive behaviour and as being victimised (as shown by test-retest over 1 week). However, they do not nominate their peers for all of the Participant Roles identified in groups of children aged between 12-15 by Salmivalli et al (1996a; 1998) and 7 - 10 by Sutton and Smith (1999). Outsider, Assistant and Reinforcer received very few nominations; it may be that these roles are not salient to young children and that they are not able to nominate their peers for taking these roles; or, it is possible that at this age these somewhat peripheral roles are not taken by children as a particular behavioural response in bullying situations. This led to these roles not being included in Study Two.

3.3.3.2 Study Two

Study Two revealed that the distribution of the bullying roles on the basis of peer nominations was; 29.8% Bystander; 25.0% Bully; 22.1% Victim; 16.3% Defender; 6.7% dual roles. On the basis of teacher reports; 56.7% Bystander; 16.3% Bully; 11.5% Defender; 13.5% dual role; 1.9% Victim. Self nominations; 77% of children self nominated as Defenders; 74% as Victims and 5% as Bullies.

3.3.3.3 Roles

It was found that there were gender differences in role assignment on the basis of peer nominations; more girls than boys were assigned to the role of Defender or Victim and more boys were assigned to the role of Bully. These are similar to findings with older children which suggest that girls are more likely to be Defenders and boys are more likely to be Bullies (e.g. Salmivalli et al 1996a; Sutton & Smith 1999).

3.3.3.4 *Types of bullying*

The types of bullying children were nominated by their peers as using and experiencing was consistent with previous research that has suggested that there are developmental trends in bullying and victimisation (Björkqvist et al 1992; Rivers & Smith 1994). It was found that these young children were very unlikely to use the more sophisticated types of bullying such as indirect methods of bullying (e.g. rumour spreading) and were also unlikely to experience such types of victimisation. Children were much more likely to use and experience direct forms of aggression.

There were also gender differences in the types of bullying used by boys and girls. When boys bullied they tended to use physical methods of bullying, such as hitting, kicking and pushing. However, girls were unlikely to use these forms of bullying. In fact, when girls bullied they tended to use direct relational methods of bullying, such as telling someone that they could not join a social group or game. These gender differences are consistent with previous research by Crick et al. (1997).

3.3.3.5 *Stability*

Bullies:

It was found that many children experienced bullying and bullied others within this age group. Between 22 and 25 % of children were identified as bullying others by their peers. Bullying also appeared to be a stable experience for many of these children, with nearly 15% of the sample consistently identified as bullying others at both time points and initial bullying nominations accounting for 68% of the variance in later nominations for bullying. Whitney and Smith (1993) carried out a large-scale survey of bullying in English schools. They reported that 12% of children in primary schools (8-11 years) were bullies, with the figures falling to 6% at secondary school. These findings would fit in with a slight decrease in the levels of bullying with age. This may be due to over-reporting of bullying by younger children perhaps as a consequence of their over-inclusive definition of bullying or the increased use of more subtle, less easily identifiable methods of bullying with age (Smith, Madsen & Moody, 1999).

The finding that bully status is already a stable role for many children is in accord with the findings of Ladd and Burgess (1999) and suggests that some children take an aggressive stance on entering the peer group and remain in this role for some time. Longitudinal research would be vital in determining whether these children continue victimising others.

Victims:

A large number of children were also found to be victimised by their peers. Between 14% (at time 2) and 22% (at time 1) of children were identified by peers as being victimised. However, when considering the proportion of children who were identified as Victims at at least one time point the level shifts to 36 %. The survey carried out by Whitney and Smith (1993) also revealed high levels of victimisation in primary schools, with as many as 27% of children between 8 and 11 years old being victims, although this falls to 10% in secondary school. However, it was found that in line with predictions from the preliminary study, victimisation was not a stable experience for many children at this age. Although many children did experience some form of victimisation, only 3% of children in this sample were consistently victimised over this period according to their peers. This low stability of victim nominations was reflected by the finding that initial victim nominations did not predict later victim nominations.

These results support the findings of Kochenderfer and Ladd (1996, 1997). Kochenderfer and Ladd (1996) found that 9% of their sample remained victims over a term. Perry et al (1990) suggest that, in the early stages of group formation (e.g. when starting school), aggressive children target their aggression toward a variety of their peers. Then, by learning from the reactions of their 'victims' they limit their aggression to fewer children. In addition, as more is learnt about each other within the peer setting (such as social and academic skills) other children may become targets for aggression. In this way their target group becomes progressively smaller until their choice of victim becomes more consistent. From these results and those of Kochenderfer and Ladd (1996) it is suggested that for some children (although admittedly, few) victimisation may be a stable experience even in Reception class. More longitudinal research is needed in this area in order to investigate if this is the beginning of an unhappy school

life of victimisation; Salmivalli et al (1998) found that by the teenage years it is difficult for children to escape the victim role. Salmivalli reported that even when these children entered a new peer group they were often targets of peer aggression.

In contrast, Crick et al (1999) suggest that bullying is a relatively stable experience for many children at this age. They examined the stability of teacher reports of the victimisation (either physical or relational) of 3 - 5 year olds over a 1 month period. They found that overall victimisation was a stable experience for children in this sample. They then split the group by age and reported evidence that in the slightly older children victim status was stable for both physical and relational experiences. However, in the younger sample, only relational victimisation was stable, whereas physical victimisation was not stable. The remarkable stability of victimisation in this group (especially relational victimisation) does not, at first glance, appear to support the findings of this study.

However, it is possible that this difference in stability may reflect the different methodologies employed by the researchers. Kochenderfer and Ladd's (1996, 1997) studies involved self reported victimisation and this study involved peer reported victimisation. By contrast, Crick et al. (1999) asked teachers to report on their pupils' behaviours. These reports may be subject to more biases, such as the tendency to allow an overall impression of a pupil or one particular outstanding trait to influence the total rating of them (halo effect). In addition, the short duration of retest may also influence reporting. Crick et al (1999) only examined stability over a 1 month period. There was also some reliability/stability of Victim status over a 1 week interval, in Study One. However, it was not stable over a 2 month interval (Study One) or a 3.5 - 4 month interval (Study Two), or from autumn to spring in Kochenderfer and Ladd's (1996, 1997) studies.

Defenders:

Defender status is a fairly stable concept even at this young age. Initial nominations for defender explained 25% of the variance in later nominations for defender (after a 3.5 to 4 month interval). The finding that 44% of defenders remain in that role over 3.5 - 4

months indicates that some 7% of the children in this sample take a prosocial role within the peer group very early on and then remain in this role over time.

Bystanders:

In addition, 45% of the original group of Bystanders were still in this role at time 2. This suggests that there are a large group of children (13%) who do not play an active role in bullying throughout the study, although, by not responding negatively to bullying some researchers suggest that these children 'allow bullying to go on by silently approving of it' (Salmivalli, 1999, p 454).

3.3.3.6 *Teacher reports*

Teachers were unwilling or unable to nominate many children as Victims. From their assessments, only 1.9% of children in their classes were bullied. This again may reflect an unstable Victim group at this age, which teachers are unable to pinpoint. Additionally, it may reflect a lack of awareness of some of the forms of bullying experienced by children at this age (social exclusion, for example). However, teachers were, in contrast, able to nominate children as being bullies. In fact, they considered as many as 16.3% of the group as bullying others which is similar to the peer nominated stable Bully group (15%). This finding would not support the suggestion that teachers were unaware of many forms of bullying. It seems to suggest that the reason that they are unable to nominate children as being victimised may be because many of the individuals who are victimised change frequently. However, it is also worth noting that children and their teachers have slightly different understandings of the term 'bullying' (see Chapter Four). In Chapter Four it is reported that children do not appear to distinguish as clearly as their teachers between provoked aggression and bullying. Whereas teachers do not consider provoked aggression or indeed a 'straight fight' as bullying. Children were also more likely to consider an accident as bullying if the consequences were negative. In this way children may overestimate the amount of bullying occurring.

3.3.3.7 *Self reports*

Children's self reports of the role taken in bullying yielded a different profile. Most children saw themselves as being Victims or prosocial Defenders. Very few children (in fact only 5%) admitted to bullying others, and even then in most cases this was in addition to other behaviours such as defending or being victimised themselves. This is probably an effect of social desirability. Only 5% of the sample said that they did nothing in the bullying situation. This could also be a reflection of the individual being more aware of his/her own behaviour than others. Although many children were seen by their peers as doing nothing in the bullying situation, very few children viewed themselves as being inactive. However, it is not clear how reliable self-nominations of these roles may be. This is an area which deserves further investigation.

3.3.3.8 *Responses to Victimization*

It was found that children reported that Victims would tell an adult significantly more than any of the other response strategies. Fighting back was the second most commonly used strategy, followed by crying, walking away and getting a friend to help. It was also found that there was a significant gender difference in the coping strategies used by Victims; children were more likely to report that female Victims tend to walk away from the Bullies. This gender difference is as reported by Kochenderfer and Ladd (1997). Kochenderfer and Ladd (1997) also report that male Victims were more likely to be reported as fighting back in response to aggression. Boys did receive more reports for fighting back than girls, although this did not reach significance. It is possible that the strategies used by boys and girls to respond to peer aggression may not have the same effects for the two genders. Kochenderfer and Ladd (1997) suggest that for girls telling an adult or walking away from an aggressive incident may be enough to end their victimisation, because girls are not expected to defend themselves directly by fighting back. However, males may be expected to confront their aggressors directly. For boys, walking away might be seen as 'sissy' and may provoke further victimisation.

3.3.3.9 *Observations*

There were significant gender differences in the observed behaviours of children in the playground. There were also found to be some significant differences between the

bullying roles and observed behaviour. However, there were no significant differences between the bullying roles (either peer, teacher or self nominated) in the amount of observed fighting or arguing. This may be because this was not observed with any frequency, the mean percentage of observations of fighting/arguing was less than five percent. Other researchers have commented on the low frequency of peer victimisation (e.g. Kochenderfer & Ladd 1997) and it is probable that the 10 minutes of observations made of each child were not be sufficient to gain a reliable index of peer victimisation. However, there were interesting relationships between the bullying roles and observed behaviour. It was found that peer nominations for Bully correlated positively with rough and tumble and organised play. Peer nominations for Victim and Defender both correlated positively with conversation, and negatively with watching others. In addition, peer nominated Victims spent significantly more time in conversation than Bullies or Bystanders. Teacher nominated Bully/Victims spent significantly more time in rough and tumble play than Defenders. The finding that Victims were observed in conversation more than Bullies or Bystanders suggests that they may not be socially isolated individuals as previous research with older children has indicated (e.g. Salmivalli et al 1996a). This may be related to the unstable nature of victimisation at this age. The relationship between the role taken in bullying and social acceptance/social rejection will be discussed in more detail in Chapter Seven.

3.3.4 Summary

The findings reported in this chapter, especially regarding the low stability of Victim status, will be a theme that will recur throughout the thesis. The low stability of Victim status at this age has interesting implications when investigating potential differences between Bullies, Victims and Defenders in terms of their physical and cognitive characteristics and their relationships. It also has implications for anti-bullying policies and the development of age appropriate interventions, both of which will be discussed in Chapter Nine.

Chapter Four: Definitions of bullying

Overview of Chapter four

This chapter examines what bullying means to young children and their teachers. Researchers have long debated what constitutes a bullying episode, however, it is also important to examine the definition of bullying held by the people directly involved in bullying; most notably the children who may experience it and the teachers who implement interventions to deal with it. Research has shown that young children do have an understanding of bullying, but that their definition of bullying is broader than those of older children and adults. This chapter will examine the definition of bullying held by young children and will investigate whether the child's experiences of bullying influence their understanding of the term.

4.1 Introduction

Researchers have attempted to provide clear definitions of what constitutes bullying. Farrington (1993) identified 5 criteria which need to be met in order for an episode to be considered as bullying. The act can be physical or psychological, it must be intended and have the desired negative effect on the target. Farrington suggests that the behaviour must be repeated and that there needs to be an imbalance of power between the Bully and Victim, where the Victim is in the less powerful position.

It is very well for researchers such as Farrington (1993) to attempt to formulate definitions of bullying, but do they agree with the conceptualisations held by those persons who are most directly involved in bullying? Several researchers have found that some of the behaviours defined as bullying by researchers are not as important as others for the different people involved in bullying. This is an important issue as asking "Are you being bullied?" or "Is there any bullying at school?" may have a different meaning for some groups involved in bullying compared with researchers' definitions. Note that in Chapter Three the term 'bullying' was not used when asking teachers and children to nominate children for the roles taken in bullying. Rather, the focus was on specific examples.

Research has found that when asked to define bullying, teachers tend to focus more on physical aggression and threats as bullying, rather than social exclusion (relational aggression) (Boulton 1997). They were also likely to focus on the repetition of the behaviours (Madsen 1996; Siann et al 1993) and the intention of the aggressor (Madsen 1996) when defining bullying. Siann et al (1993) noted that teachers focussed on the difference in power between the bullies and victims (Siann et al 1993). Birkinshaw and Eslea (1998) found that primary school teachers were more likely to perceive physical acts as bullying. They also perceived physical bullying as more distressing for the victim (as opposed to verbal bullying and indirect bullying), although it has been found that victims report relational types of bullying as the most harmful form of bullying (Crick, Bigbee & Howes 1996).

However, children do not necessarily believe that a behaviour needs to be repeated in order to qualify as bullying (Guerin & Hennessy 1998; Madsen 1996; Smith & Levan 1995; Hoover et al 1992; LaFontaine 1991) and are less focussed on the intentions of the aggressor (Guerin & Hennessy 1998) and rather more focussed on the outcome of the aggression (Madsen 1996; LaFontaine 1991).

Children are able to generate a model of bullying which includes physical, verbal and indirect aggression, although, like adults, they tend to view bullying mostly as a form of physical aggression (Guerin & Hennessy 1998; Smith & Levan 1995; Arora & Thompson 1987). Younger children differ from older children in that they give broader (Madsen 1996) and more overinclusive definitions of bullying (Smith & Levan 1995). They do not spontaneously give examples of indirect bullying, however, when asked if such incidents are bullying, young children can identify indirect bullying (Smith & Levan 1995). Younger et al (1986) have also noted that young children tend to distinguish aggression along one dimension, either good or bad, whereas older children and adults use more complex dimensions when viewing aggression.

As there appear to be age related differences in the understanding of bullying it is possible that age related cognitive changes may account for the more subtle distinctions between bullying and general aggression made by older children. In addition the

amount of exposure to bullying behaviour might influence children's understanding of the concept. Perhaps children's definitions of bullying become more precise as they get older as a result of exposure to bullying and general aggression, enabling them to make a clearer distinction between the two. If this were true then we could expect that children in Year 1 may have a more precise definition of bullying than children in Reception.

Girls and boys may have different definitions of bullying as a result of exposure to and use of different bullying styles; girls using and experiencing more relational bullying and boys using and experiencing more physical bullying (Crick et al 1997; 1999). Hoover et al (1992) found that each gender mainly produces examples of their primary experience of bullying, although Madsen (1997) reports no gender differences.

In a similar vein it may also be the case that children who are exposed to bullying more than others may have different definitions of bullying. For example, Defenders, Victims and Bullies may have a different definition of bullying than Bystanders. In addition, it would be interesting to examine whether young Bullies have a similar understanding of bullying as their Victims or the Defenders of the Victims. In order to justify their behaviour, it may be possible that young children who do bully do not consider their own behaviour as such. For example, when asked about bullying, older bullies have been reported as saying that they bully because its fun (Olweus 1993a).

4.1.2 Aims and Hypotheses:

Aim One: To examine whether exposure to bullying influences the definitions given by children. This will be done in three ways by investigating; 1) whether there is an effect of gender on the definition of bullying given by children, 2) whether there is an effect of age and year group on the definitions given, 3) whether the role taken in bullying has an influence on children's definitions of bullying.

Aim Two: To examine the definition of bullying given by the teachers of these classes.

Hypothesis One: Children will give an overinclusive definition of bullying than older children, based on previous research, including behaviours which are not repeated and will be less focussed on the intentions of the aggressor and more focussed on the outcome of the aggression.

4.2 Method

4.2.1 Participants

See 3.3.1.1

4.2.2 Assessments

- Role in Bullying:

Peer, self and teacher nominations for the role taken in bullying described in 3.3.1.2.

- Understanding of Bullying Interview / Questionnaire:

A pictorial interview was used with the children. It consisted of one open-ended question and 17 illustrated questions.

The child was first asked “What do you think bullying is?” The child was then prompted by the researcher; “What else do you think bullying is?”, “Anything else?” until the child said no. The child was then told “I’m going to show you some cartoons and I’d like you to tell me if you think that they are bullying, not bullying or if you aren’t sure.” He/she was then shown each of the 17 illustrated statements which were read aloud to the child. After each statement was read out they were asked “What do you think that is? Bullying or not bullying?” (See Appendix Four).

The questionnaire was developed from a larger questionnaire originally developed for the TMR project researchers and has been used in questionnaire format with 8 and 14 year olds (the TMR website is at www.gold.ac.uk/tmr/ and is described in more detail in Chapter Two). This study used 2 versions of the interview, one for girls and one for boys in which the gender of the children in the items were the same as the participant. The items included varied in terms of power differences between the actors, the outcome of the behaviour, the intention of the behaviour, repetition of the action and

whether the action was physical, verbal or relational (both direct and indirect). In addition, 2 items which were benign or prosocial were included.

Responses to the open-ended question “What do you think bullying is?” were written down verbatim. The answers given to the open-ended question were classified using categories based on those developed by Madsen (1997).

Physical; Verbal; Relational; Adjective; Inequality of power; Effect on target; Intention; Variant term; Reason; Repeat; Not repeated; Person or persons; Mental; Indirect.

These categories are described in detail in 2.2.2.6. Responses to the 17 illustrated items were coded immediately as being bullying, not bullying or the participant was not sure.

Teachers were administered a version in questionnaire format in which the items were described in words (rather than cartoons) and the gender of the children in the items was not clear (they were named X and Y). The first question was open-ended “What do you think bullying is?” The 17 statements were written below and the teachers were instructed “Please read the following statements carefully and indicate whether the behaviour described constitutes bullying or not bullying. Please indicate if you are not sure of the answer.” The answers they gave to the open-ended question were then coded in the manner described above. (See Appendix Five for full list of questions).

- BPVS

BPVS short form (Dunn et al 1982) was administered to each child and scored as described in the instruction manual. The BPVS standardised score was used in subsequent analyses.

4.2.3 Procedure

As described in 3.3.1.3.

4.3 Results

4.3.1 Statistical note

Significance was taken at the 0.01 level. This was as a result of the numerous tests which were to be performed on the data, a more conservative significance value was considered necessary to guard from Type I errors.

4.3.2 Verbal abilities

Mean = 89.0; s.d. = 15.7; Minimum = 59; Maximum = 123.

4.3.3 Open-ended question; 'What do you think bullying is?'

38.4% of children said that they did not know what bullying was.

6.0% of children gave answers which were obviously not related to bullying (e.g. book, action man, mum, nice, jump)

55.6% of children gave an answer to this question relating to bullying.

34.3% of children spontaneously either mentioned that bullying can be physical or cited a physical example of bullying. 11.1% either mentioned that bullying can be verbal or gave a verbal example of bullying. 4.0% either mentioned that bullying can be relational or gave a relational example of bullying. 11.1% mentioned the harmful effect on the target as a result of the aggressors' actions. 2.0% mentioned an inequality of power, with the target in the weaker position. 19.2% mentioned an adjective in reference to a bullying action (not a person) e.g. naughty, nasty, horrible, mean. 1.0% mentioned a variant term or a term synonymous with bullying e.g. picking on or victimising. No child mentioned that the behaviour need be repeated or a one-off. No child talked about the fact that bullying can be done by one person or a group. They did not mention that the behaviour need be intentional or that the aggressor may have a reason for their behaviour. Neither did any children mention that bullying can involve mental or emotional abuse or that bullying could be indirect.

4.3.4 Gender differences in responses to the open-ended question

Table Five: The percentage of boys and girls giving each category of response to the open-ended question.

	Male	Female	Chi square analysis (1df)
Percentage who gave an answer related to bullying	53.3	51.9	$\chi^2 = 0.00$
Percentage giving a physical example	40.0	29.6	$\chi^2 = 1.17$
Percentage giving a verbal example	11.4	11.1	$\chi^2 = 0.00$
Percentage using adjectives	11.1	25.9	$\chi^2 = 3.47$
Percentage mentioning harmful effects on victim	13.3	11.1	$\chi^2 = 0.11$

* $p < 0.05$, ** $p < 0.01$

As Table Five indicates, Chi square analyses revealed no significant differences by gender in responses given to the open-ended question.

4.3.5 Differences by year group

Differences in the number of children in each year group (Reception vs. Year 1) giving spontaneous examples of each type of bullying were also examined. As Table Six below shows, Chi square analyses revealed no significant difference between the numbers of children in Reception and Year 1 giving answers related to bullying, providing examples of physical bullying or mentioning that bullying can be physical. There were differences between the responses given to the open-ended question by the children in each year group, however none of these reached significance at the 0.01 level. Younger children were more likely to mention examples of verbal bullying or state that bullying can be verbal and they were also more likely to mention the harmful effect on the target. Children in Year One were more likely than children in the Reception class to use adjectives to describe bullying.

Table Six: The percentage of children in each year group giving each category of response to the open-ended question.

	Reception	Year One	Chi square analysis (1df)
Percentage who gave an answer related to bullying	47.8	56.6	$\chi^2 = 0.76$
Percentage giving a physical example	37.0	32.1	$\chi^2 = 0.26$
Percentage giving a verbal example	19.6	3.8	$\chi^2 = 6.05^*$
Percentage using adjectives	10.9	26.4	$\chi^2 = 3.84^*$
Percentage mentioning harmful effects on victim	19.6	5.7	$\chi^2 = 4.47^*$

* $p < 0.05$, ** $p < 0.01$

4.3.6 Do age and BPVS have an effect on the answers given to open-ended question?

Those children who mentioned the effect on the target when asked what they thought bullying was had a significantly higher mean score on the BPVS than those who did not mention the harmful effect on the target [$t(94) = 3.95$, $p < 0.01$]. The mean score on the BPVS by children who mentioned the effect on the victim was 105.55 (s.d. 11.58) compared with 86.86 (s.d. 15.12) for those who did not mention the effect on the victim. No other differences were significant.

4.3.7 Does the bullying role taken by the child have an influence on the definition of bullying?

a) Peer nominated bullying role

Children were split into two groups based on their peer nominated bullying role; either 'active' (Bully, Victim, Defender etc) or not active, i.e. Bystander. This was done in order to examine whether children who were directly involved in bullying held different definitions of the term than those children who were not directly involved, and to carry out statistical analyses on the group differences. Chi Square analyses revealed few differences in the definitions of children who were active or not active in bullying. More Bystanders considered the effect on the Victim when asked what they thought bullying

was, although this was not significant at the 0.01 level [$\chi^2(1) = 5.08$, $p < 0.05$ Fishers exact performed]. It was found that 23.3% of Bystanders mentioned the negative effect on the Victim compared with 7.3% of children who were assigned to an active role in bullying on the basis of peer nominations.

Examination was made of the different answers given to the open-ended question “What do you think bullying is?” by children in terms of the nominations they received for bullying, victimisation and defending. The responses given to this question were examined on the basis of Madsen’s (1997) categorisations and investigated whether children who identified each feature of bullying differed in the number of peer nominations they received for Bully, Victim and Defender from those children who did not identify that feature. Unrelated t-tests were performed with peer nominations for bullying, victimisation and defending as the dependent variables and the independent variables being whether or not children had mentioned that bullying could be physical, verbal, have a harmful effect on the victim or used an adjective to describe bullying. It was found that there was no significant difference in the number of peer nominations received for each of the bullying roles on the basis of the responses given to the open-ended question.

b) Teacher nominated bullying role

Again children were split into 2 groups; those with an active role in bullying and those who were deemed by teachers not to take an active role in bullying. Chi-square analyses revealed no significant differences between the groups of children in terms of their answers to the open-ended question. Neither group was more likely than the other to give an example of physical bullying or an example of verbal bullying. It was also found that neither group was more likely than the other to mention the effect on the Victim or use adjectives to describe bullying.

c) Self nominated bullying role

Chi square analyses revealed no significant difference between children who self nominated as Defenders and those who did not self nominate as Defenders in the responses they gave to the open-ended question. There was also no significant

difference between children who self nominated as Victims and those who did not self nominate as Victims in their responses to the open-ended question.

Summary of open-ended question

Over half of the children were able to spontaneously give an answer to this question relating to bullying. The majority mentioned that bullying can be physical or used adjectives to describe bullying. No significant gender differences were found in the responses given to this question. Nor were there any significant effects of year group that could not be accounted for by chance. There was no effect of the role taken in bullying on the definition of bullying given to the open-ended question, on the basis of peer, teacher or self nominations. However, it was found that children who mentioned the harmful effect on the target when describing bullying had significantly better verbal skills than those children who did not mention the effect on the Victim.

4.3.8 Responses to the illustrated statements

Table Seven: Responses given to the illustrated statements ordered by percentage of children considering the statement to be bullying.

Statement	Percent identifying it as bullying	Percent identifying it as not bullying	Chi square analysis (1df)
2. X and Y don't like each other and start to fight	81.8%	18.2%	$\chi^2 = 40.49^{**}$
10. X says nasty things to Y	76.8%	23.2%	$\chi^2 = 28.37^{**}$
16. X tells nasty stories about Y	76.8%	23.2%	$\chi^2 = 28.37^{**}$
3. X starts a fight with Y every break time	74.7%	25.3%	$\chi^2 = 24.25^{**}$
9. X tells everyone not to talk to Y.	74.7%	25.3%	$\chi^2 = 24.25^{**}$
14. X starts a fight with Y who is smaller	72.7%	27.3%	$\chi^2 = 20.46^{**}$
17. X won't let Y play today	72.7%	27.3%	$\chi^2 = 20.46^{**}$
7. X says nasty things to Y every day	71.7%	28.3%	$\chi^2 = 18.68^{**}$
15. X starts a fight with Y because Y said that X was stupid	71.7%	28.3%	$\chi^2 = 18.68^{**}$
12. X takes Y's ruler and breaks it.	69.7%	30.3%	$\chi^2 = 15.36^{**}$
8. X never lets Y play	65.7%	34.3%	$\chi^2 = 9.71^{**}$
13. X starts a fight with Y	63.6%	36.4%	$\chi^2 = 7.36^{**}$
5. X makes fun of Y's hair. Y is upset	62.6%	37.4%	$\chi^2 = 6.31^*$
1. X borrows Y's ruler and accidentally breaks it	39.4%	60.6%	$\chi^2 = 4.46^*$
4. X makes fun of Y's hair. They both laugh.	24.2%	75.8%	$\chi^2 = 26.27^{**}$
6. X asks Y if he/she would like to play	22.2%	77.8%	$\chi^2 = 30.56^{**}$
11. X forgot their pen so Y lends them one of theirs	22.2%	77.8%	$\chi^2 = 30.56^{**}$

* $p < 0.05$, ** $p < 0.01$

Table Seven shows the percentage of children identifying each statement as bullying or not bullying and the results of a series of chi square tests examining whether more children considered each statement to be bullying or not bullying. Chi square analyses revealed significant differences in the numbers of children identifying statements as bullying or not bullying.

Prosocial

Children were more likely to consider the 2 prosocial statements (**X asks Y if he/she would like to play** and **X forgot their pen so Y lends them one of theirs**) as not bullying than bullying.

Verbal bullying

Children were more likely to consider the statements describing verbal bullying as bullying than not bullying. Significantly more children identified **X says nasty things to Y every day** and **X says nasty things to Y** as bullying than not bullying.

Physical bullying

Children were more likely to consider any acts of physical aggression as bullying than not bullying. Significantly more children identified the statements **X & Y don't like each other and start to fight**, **X starts a fight with Y every break time**, **X starts a fight with Y**, **X starts a fight with Y who is smaller**, **X starts a fight with Y because Y said that X was stupid** and **X takes Y's ruler and breaks it** as bullying than not bullying.

Indirect or relational bullying

Children also identified indirect or relational methods of bullying (**X never lets Y play**, **X tells everyone not to talk to Y**, **X tells nasty stories about Y** and **X won't let Y play today**) as bullying more than not bullying.

4.3.9 The role of intention

X takes Y's ruler and breaks it vs. **X borrows Y's ruler and accidentally breaks it**. It was found that children were significantly more likely to identify the former as

bullying and the latter as not bullying [$\chi^2(1) = 18.33, p < 0.01$]. 69.7% of children considered the statement **X takes Y's ruler and breaks it** to be bullying, compared with 39.4% of children who considered the statement **X borrows Y's ruler and accidentally breaks it** to describe a bullying situation.

4.3.10 The role of provocation

X starts a fight with Y vs. **X & Y don't like each other start to fight**. It was found that children considered provocation when identifying statements as bullying or not bullying. They were significantly more likely to identify the latter statement in which the agents did not like one another as bullying than the former [$\chi^2(1) = 8.25, p < 0.01$]. 81.8% of children considered **X and Y don't like each other and start to fight** as bullying compared with 63.6% of children who considered **X starts a fight with Y** to be bullying.

A second comparison was carried out in order to examine this effect further. The responses given to the statements **X starts a fight with Y** and **X starts a fight with Y because Y said that X was stupid** were compared. It was found that there was no significant difference in the number of children identifying each statement as bullying. 71.7% of children considered the provoked act to be bullying and 63.7% of children identified **X starts a fight with Y** as bullying [$\chi^2(1) = 1.48, n.s.$].

4.3.11 The effect on the target

X makes fun of Y's hair. They both laugh vs. **X makes fun of Y's hair. Y is upset**. Children did consider the consequences of an action when defining an incident as bullying. It was found that when Y laughed they were significantly more likely to consider the incident as benign and not bullying. Whereas, when Y was upset they were more likely to consider it to be bullying [$\chi^2(1) = 29.68, p < 0.01$]. 62.6% of children considered the statement to be bullying when Y was upset, compared with only 24.2% when X and Y laughed.

4.3.12 Power differences

X starts a fight with Y vs. **X starts a fight with Y who is smaller**. Chi square analyses revealed no significant difference in the number of children considering each statement as bullying [$\chi^2(1) = 1.89$, n.s.]. 72.7% of children considered the statement in which Y was smaller than X to be bullying and 63.7% of children considered the former statement to be bullying.

4.3.13 The role of repetition

Three sets of comparisons were made in order to investigate whether repetition was a defining feature of physical bullying, verbal bullying or relational bullying. In order to examine the effect of repetition on the definition of physical bullying a comparison was made between the proportions of children identifying the statements **X starts a fight with Y** vs. **X starts a fight with Y every break time** as bullying or not bullying. It was found that there was no significant difference in the number of children identifying these statements as bullying [$\chi^2(1) = 2.87$, n.s.]. 74.7% of the children identified the statement which included repetition of the action as bullying and 63.6% identified the statement which did not include repetition as bullying. The responses given to the statements **X says nasty things to Y** vs. **X says nasty things to Y every day** were also compared. There was no significant difference in the number of children identifying these two statements as bullying [$\chi^2(1) = 0.66$, n.s.]. 76.8% of children identified the statement **X says nasty things to Y** as bullying compared with 71.7% who considered the statement **X says nasty things to Y every day** to be bullying. When the effect of repetition was considered for statements regarding relational acts it was found that there was no significant difference between the numbers of children who considered the two statements to be bullying; **X won't let Y play today** (72.7%) and **X never lets Y play** (65.7%) [$\chi^2(1) = 1.16$, n.s.].

4.3.14 Gender differences

A series of Chi Square analyses were carried out in order to examine whether there were any significant differences in the proportions of boys and girls identifying each statement as bullying or not bullying. It was found that while there was not a great difference between boys and girls in terms of which statements they considered to be

bullying or not bullying, boys were significantly more likely to identify the statement **X borrows Y's ruler and accidentally breaks it** as bullying than girls [$\chi^2(1) = 13.41$, $p < 0.01$]. 51.1% of boys considered the statement to be bullying, compared with 29.6% of girls.

4.3.15 School year differences

Further Chi Square analyses revealed that experience at school did not appear to play an influential role in understanding of bullying. The only difference between Year 1 and Reception children was that younger children were more likely than older children to consider **X borrows Y's ruler and accidentally breaks it** was bullying [$\chi^2(1) = 4.74$, $p < 0.05$], although this did not reach significance at the 0.01 level. 58.7% of children in the Reception classes considered the statement to describe bullying, whereas only 22.6% of the children in Year One considered it to be bullying.

Using unrelated samples t-tests age differences were found between children considering four of the 17 statements as bullying or not bullying, however none of these reached significance at the 0.01 level. Children who considered the statements **X starts a fight with Y every break time**, **X starts a fight with Y who is smaller**, **X takes Y's ruler and breaks it** and **X tells nasty stories about Y** to be bullying were older than those who considered them not to be bullying [$t(97) = -2.39$, $p < 0.05$]; [$t(97) = -2.13$, $p < 0.05$]; [$t(97) = -2.18$, $p < 0.05$]; [$t(97) = -2.04$, $p < 0.05$].

4.3.16 Does the child's verbal ability have an influence on their definition of bullying?

A series of unrelated t-tests were performed in order to examine whether the children who gave different answers to the 17 illustrated statements (either bullying or not bullying) differed in their score on the BPVS. It was found that there were several differences relating to score on the BPVS (see Table Eight).

Table Eight: Mean BPVS scores in relation to the definition of bullying (standard deviations in parenthesis)

Statement	Mean BPVS score of those who identified it as bullying	Mean BPVS score of those who identified it as not bullying	Unrelated samples t-test (94df)
1. X borrows Y's ruler and accidentally breaks it	87.16 (13.39)	90.15 (17.26)	$t = 0.90$
2. X and Y don't like each other and start to fight	91.47 (15.25)	77.53 (13.88)	$t = -3.47^{**}$
3. X starts a fight with Y every break time	91.14 (16.14)	81.81 (12.85)	$t = -2.48^*$
4. X makes fun of Y's hair. They both laugh.	82.71 (15.22)	91.10 (15.63)	$t = 2.29^*$
5. X makes fun of Y's hair. Y is upset	93.39 (15.49)	81.00 (13.88)	$t = -3.92^{**}$
6. X asks Y if he/she would like to play	82.18 (15.56)	91.03 (15.50)	$t = 2.35^*$
7. X says nasty things to Y every day	91.24 (15.87)	82.64 (14.36)	$t = -2.39^*$
8. X never lets Y play	92.48 (15.09)	81.71 (15.20)	$t = -3.26^{**}$
9. X tells everyone not to talk to Y.	90.47 (16.24)	84.35 (13.99)	$t = -1.63$
10. X says nasty things to Y	90.71 (15.90)	82.90 (14.54)	$t = -2.02^*$
11. X forgot their pen so Y lends them one of theirs	81.77 (15.42)	91.15 (15.47)	$t = 2.50^*$
12. X takes Y's ruler and breaks it.	89.84 (16.24)	86.85 (14.99)	$t = -0.83$
13. X starts a fight with Y	92.05 (15.18)	83.44 (15.82)	$t = -2.62^*$
14. X starts a fight with Y who is smaller	90.56 (16.41)	84.56 (13.59)	$t = -1.64$
15. X starts a fight with Y because Y said that X was stupid	92.10 (15.71)	81.30 (13.78)	$t = -3.11^{**}$
16. X tells nasty stories about Y	90.63 (15.75)	82.80 (15.16)	$t = -1.99^*$
17. X won't let Y play today	91.70 (15.99)	81.32 (13.01)	$t = -2.92^{**}$

* $p < 0.05$, ** $p < 0.01$

From Table Eight it is clear that there are some differences in the BPVS scores of children identifying the statements as bullying or not bullying. It was found that children who identified the statements;

X and Y don't like each other and start to fight.

X makes fun of Y's hair. Y is upset.

X never lets Y play.

X starts a fight with Y because Y said that X was stupid.

X won't let Y play today.

as bullying had significantly higher scores on the BPVS at the 0.01 level than those children who considered them to not be bullying. None of the other differences reached significance at the 0.01 level.

4.3.17 Do children's experiences of bullying influence their responses to the 17 illustrated statements?

a) Peer nominated bullying role

Children were again split into two groups based on their peer nominated bullying role; either 'active' (Bully, Victim, Defender etc) or not active, i.e. Bystander. This was done in order to examine whether children who were directly involved in bullying held different definitions of the term than those children who were not directly involved. Chi Square analyses revealed that there were no significant differences in the answers given to the 17 illustrated statements by children who were active or not active in bullying.

In order to examine whether children who considered a statement to be bullying or not bullying differed in the amount of bullying, victimisation or defending they were nominated for by their peers a series of unrelated t-tests were performed using the continuous number of nominations received.

There were no significant differences in the number of Victim or Defender nominations received by children in relation to their definition of bullying as given in response to the 17 illustrated statements. However, those who considered the statement **X starts a fight with Y who is smaller** as bullying received fewer peer nominations for bullying (Mean

= 3.29, s.d. 2.87) than those children who identified as not being bullying (Mean = 5.59, s.d. 4.50). However, these differences only reached significance at the 0.05 level [$t(34.22) = 2.48, p < 0.05$].

b) Teacher nominated bullying role

Teacher nominated bullying roles were split into 2 groups; those children who were nominated as taking an active role in bullying (Bullies, Defenders, Bully/Victims etc) and those who did not have an active role in bullying, i.e. Bystanders. Chi square analyses were performed in order to examine whether children who took an active role in bullying gave different responses to the 17 illustrated questions than children who did not take an active role in bullying according to their teachers. Only one difference was found between the groups, although this did not reach significance at the 0.01 level. More Bystanders than children in an 'active' role considered **X borrows Y's ruler and accidentally breaks it** as bullying [$\chi^2(1) = 6.08, p < 0.05$]; 50.0% compared with 25.6%.

c) Self nominated bullying role

Chi square analyses were performed between the groups of children who self nominated as Defenders and those who did not self nominate as Defenders and between those children who self nominated as Victims and those who did not.

There was very little difference between the groups of children who self nominated as Defenders and those who did not self nominate as Defenders in terms of the statements which they identified as bullying or not bullying. Children who self nominated as Defenders were significantly more likely to identify **X asks Y if he/she would like to play** as not bullying compared with children who did not self nominate as Defenders [$\chi^2(1) = 8.47, p < 0.01$]. Fishers Exact was performed due to the small cell size. 85.1% of children who self nominated as Defenders considered this not to be bullying compared with 56.5% of children who did not self nominate as Defenders.

There was also little difference between children who self nominated as Victims and children who did not self nominate as Victims in the statements they considered to be bullying or not bullying. Children who self nominated as Victims were more likely to

identify **X makes fun of Y's hair. They both laugh** as not bullying compared with children who did not self nominate as Victims, although this did not reach significance at the 0.01 level [$\chi^2(1) = 5.68, p < 0.05$].

Summary of 17 illustrated questions

Most children were able to identify the prosocial statements as not being bullying. They were also able to identify verbal, physical and indirect or relational bullying as such when presented with them. They considered intention of the perpetrator and the consequences of the action important in defining an incident as bullying. They were less concerned about power differences and repetition of actions. They were also more likely to consider provoked aggression as bullying than aggression which was not provoked in some circumstances. There was only one gender difference, which did not appear to fit any predictable pattern. There were no significant effects of age or school year on the responses given to the 17 statements at the 0.01 level. However, children's verbal ability did have an effect on which statements they considered to be bullying. There was no effect of the peer nominated or teacher nominated bullying role on the definitions given by children. There was also no effect of self nominated Victim status, although self nominated Defenders were more likely to consider a prosocial statement as not bullying than children who did not self nominate as Defenders.

4.3.18 Teachers' understanding of bullying and does it differ from the definition held by young children?

Open-ended question

Two of the teachers mentioned that bullying could be verbal and all of them mentioned that bullying may take physical forms. Three considered the mental abuse which can characterise bullying, although none mentioned that it can take relational forms. Three of the four teachers considered the effect on the victim of the aggressors' behaviour and two noted the inequality of power between the aggressor and victim (with the victim in the weaker position). One teacher attempted to give a reason for the bully's behaviour and another used a variant term when describing bullying. Some of the teachers considered the repetition of the behaviour; Two suggested that one-off behaviours could be bullying and one of these also considered repeated aggression to be bullying. Two of

the teachers also considered that bullying could either be carried out by a group or an individual. However, none mentioned that bullying could be indirect (See Table Nine).

**Table Nine: Responses to question one “What do you think bullying is?”
Percentage of teachers and children giving answers which fit each category.**

Categories	Teachers	Children
Physical	100	34.3
Verbal	50	11.1
Relational	0	4.0
Mental	75	0
Effect on victim	75	11.1
Inequality of power	50	2.0
Variant term	25	1.0
Repeated	25	0
Not repeated	50	0
Person or persons	50	0
Reason	25	0
Adjective	0	19.2
Intention	0	0
Indirect	0	0

Both teachers and their pupils mentioned the physical nature or verbal nature of bullying and the negative effect on the victim. The teachers were more likely to mention that bullying could be repeated or could be a one-off incident. They were also more likely to mention a reason for bullying (e.g. to raise the self-esteem of the bully) and the inequality of power between the bully and victim. Children were more likely to use adjectives to describe bullying.

Table Ten: Percentage of teachers and children identifying each of the 17 statements as bullying.

Statement	% of participants identifying each statement as bullying	
	teachers	children
1. X borrows Y's ruler and accidentally breaks it	0.0	39.4
2. X & Y don't like each other start to fight	0.0	81.8
3. X starts a fight with Y every break time	100.0	74.7
4. X makes fun of Y's hair. They both laugh	25.0	24.2
5. X makes fun of Y's hair. Y is upset	75.0	62.6
6. X asks Y if he/she would like to play	0.0	22.2
7. X says nasty things to Y every day	100.0	71.7
8. X never lets Y play	75.0	65.7
9. X tells everyone not to talk to Y	100.0	74.7
10. X says nasty things to Y	50.0	76.8
11. X forgot their pen so Y lends them one of theirs	0.0	22.2
12. X takes Y's ruler and breaks it	75.0	69.7
13. X starts a fight with Y	50.0	63.6
14. X starts a fight with Y who is smaller	75.0	72.7
15. X starts a fight with Y because Y said that X was stupid	25.0	71.7
16. X tells nasty stories about Y	100.0	76.8
17. X won't let Y play today	50.0	72.7

Due to the small number of teachers involved it was not possible to carry out statistical tests with any confidence. However, by examining the percentages of teachers and children who identified each of the statements as bullying or not bullying it is clear that there are some interesting differences between the groups (see Table Ten). The main difference between the children's definitions and those of the teachers were found in the statement: **X & Y don't like each other and start to fight**. 81.8% of children thought that was bullying, however all of the teachers identified it as not bullying.

In addition, 71.7% of the children decided that the statement: **X starts a fight with Y because Y said that X was stupid** was bullying. However, only 25% of the teacher group agreed with them and 75% indicated that they thought that this did not constitute a bullying episode.

Children were also more likely than teachers to suggest that accidentally breaking someone's ruler was bullying. 39.4% of children identified this statement as bullying, whereas none of the teachers identified it as bullying.

Summary of differences in definitions given by children and teachers

The main differences between the definitions of bullying held by children and their teachers appear to be when considering provocation. Children do not appear to distinguish as clearly between provoked aggression and bullying. Whereas teachers do not consider provoked aggression or a 'straight fight' as bullying. In addition, children are more likely than teachers to consider an accident as bullying. In this way they seem to focus on the consequences of the act, rather than the motives.

4.4 Discussion

The results indicate that just over half of the young children assessed in this study were able to give an answer to an open-ended question "What do you think bullying is?" It was found that the most common answers given related to the physical nature of bullying in accordance with predictions (Guerin & Hennessey 1998; Smith & Levan 1995; Arora & Thompson 1987). Children were also able to give verbal examples of bullying although very few spontaneously gave an example of relational or indirect bullying, in accord with Smith and Levan (1995). A large proportion of children who responded to this question used adjectives to describe the unpleasant nature of bullying (e.g. horrible or nasty) which is in accordance with Madsen (1997). Children at this age also tended to mention the harmful or adverse effect of bullying on the victim (e.g. makes someone cry). This is also as predicted (Madsen 1996; LaFontaine 1991).

Although nearly half of the children interviewed in this study were unable to give a spontaneous answer to the question "What do you think bullying is?" all of the children

were able to give answers to the 17 illustrated statements which supports the predictions of Hypothesis One. Young children did provide more overinclusive definitions of bullying.

Children were able to identify statements of different types of bullying as bullying. They were significantly more likely to consider statements of physical bullying, verbal bullying, relational bullying and indirect bullying as bullying than not bullying which is in accord with research by Smith and Levan (1995) who report that although young children are not able to give spontaneous examples of indirect bullying, when presented with an example of indirect bullying they are able to identify it as such.

Children considered intent when they identified statements as either bullying or not bullying (although no child mentioned intention in their spontaneous definitions of bullying). It was found that children were significantly more likely to consider a behaviour as bullying if the behaviour had been intended than when it was an accident, although 40% of them considered an accident to be bullying. Children also considered the effect of the action on the target as important in defining it as bullying which supports the findings of Madsen (1996) and LaFontaine (1991). When the action had a negative effect on the target they were significantly more likely to consider the episode as being bullying than if the effect was benign.

These findings which suggest that young children are less focussed on intent and more focussed on the outcome of an action are similar to those of Younger et al (1986). Younger et al (1986) suggest that many young children distinguish aggression along a 'good' vs. 'bad' continuum, whereas older children and adults use more dimensions in distinguishing aggression.

Young children also did not make fine-grained distinctions on the basis of power differential. They did not consider an imbalance of power when defining statements as bullying or not bullying. They were equally as likely to consider a statement in which there was no imbalance of power as bullying as an example in which the target was smaller than the perpetrator. There also appeared to be no effect of the repetition of the

act when children identified statements as bullying or not bullying. Children were just as likely to consider one-off behaviours as bullying as they were to consider actions which were repeated every day or every break time. This also supports previous research (Guerin & Hennessey 1998; Madsen 1996; Smith & Levan 1995; Hoover et al 1992; LaFontaine 1991).

4.4.1 Does experience or cognitive development have an influence on definition of bullying at this age?

There were no significant differences by gender in the spontaneous answers given by children and no predictable gender differences when defining statements as bullying which were above chance level. This lack of gender differences is not as predicted if children's experiences shape their definitions as suggested by Hoover et al (1992). If this were the case we would expect that boys would be more likely to consider physical methods as bullying than girls and girls to give more relational examples of bullying than boys. However, the findings do support those of Madsen (1997) who also reports no gender differences in the definitions of bullying given by children.

If experience was a factor in the definition of bullying held by children it would be predicted that older children and those who had spent more time at school (i.e. Year 1 children) would have a more precise definition of bullying than younger children. No significant effects of age or year were found on the responses given to the open-ended question or the 17 statements above chance.

In addition, the definitions of bullying given by children were also examined in relation to the bullying role assignments they had received by peer, teacher and self nominations. If exposure to bullying is important in the definition of bullying it was suggested that children who played a more involved role in bullying (Bullies, Victims and Defenders) may have a different definition of bullying than those children who were not as involved in bullying (i.e. Bystanders). However, there were no conclusive significant differences between children in the different roles in their definitions of bullying.

This suggests that perhaps all children are exposed to bullying sufficiently for them to form a definition. Girls and boys may be aware of the bullying the other gender experience/use and Bystanders may see bullying in the playground, although not be actively involved in it themselves, which may be a sufficient level of exposure for them to form a definition of bullying. In addition, the amount of exposure to bullying may have a threshold effect, i.e. that the amount of exposure to bullying in the reception class is enough for young children to gain an insight into bullying and form a definition of the term.

Although the evidence from this study does not call for the role of experience to be dismissed out of hand, the considerable effect of verbal abilities on the definitions given by children, suggests that it may be cognitive development rather than social experience which is important in the development of a definition of bullying. In order to examine this more thoroughly studies involving controls for age, experience and verbal ability need to be carried out.

4.4.2 Teacher vs. pupil definitions of bullying

Teacher and pupil definitions have been found to differ. The main differences between their definitions of bullying were that the teachers considered more factors when deciding whether an incident was bullying or not bullying than children, which is as predicted by Younger et al (1986). Children do not appear to distinguish as clearly between provoked aggression and bullying, whereas teachers do not consider provoked aggression or a 'straight fight' as bullying. In addition, children are more likely than teachers to consider an accident as bullying. In this way they seem to focus on the consequences of the act, rather than the motives. Other researchers have found that teachers consider repetition to be a characteristic of bullying (e.g. Madsen 1996; Siann et al 1993) although the teachers in this study mentioned that it can be repeated or be a one-off episode.

4.5 Summary

Just over half of the young children in this study were able to give a definition of bullying to the open-ended question. However, their definitions tended to focus on

physical bullying as predicted. Although they were able to identify physical, verbal, relational and indirect bullying when presented with examples. There was no predictable effect of age, school year, gender or the role taken in bullying on the definitions of bullying given by children. However, there was a considerable effect of verbal ability. This suggests that cognitive development may be more important than experience in developing a definition of bullying. In comparison with their teachers, young children were more likely to consider provoked aggression or a 'straight fight' as bullying. In conclusion, it is important to keep in mind the slightly different definitions of bullying that are held by researchers, teachers and pupils of different ages when researching bullying and designing and implementing anti-bullying interventions. This will be discussed in more detail in Chapter Nine.

Chapter Five: Physical characteristics of children taking different roles in bullying

Overview of chapter five

In this and the following chapters the individual differences between children who take different roles in bullying will be examined. This chapter will discuss the physical characteristics of children assigned to the different bullying roles (identified in Chapter Three), focussing on physical strength. The stereotypical image of a bully is that of a big, strong child picking on a smaller, weaker victim (e.g. 'Tom Brown's Schooldays' by Thomas Hughes). This chapter will discuss whether this is a true depiction of bullies and victims within a group of children aged between four and six years.

5.1 Introduction

"When children are asked why they are bullied they often refer to physical attributes, e.g. obesity, red hair, wearing glasses, or abnormalities of speech" (Dawkins 1996, p 603). However, studies which have investigated physical differences between Bullies, Victims and other children have not always found differences between the groups. In fact, with the exception of physique, Olweus (1978, 1993a) regards the issue of external characteristics as of little or no importance in Bully/Victim problems. Other studies have found a high risk for victimisation in certain groups of children, for example with special educational needs. Hugh-Jones and Smith (1999) interviewed adult stammerers and found that 82% reported having been bullied at school. Nabuzoka and Smith (1993) found significantly more children with special educational needs were nominated by peers as Victims (33%), than children without special educational needs (8%).

In terms of differences in physical size and strength, Lagerspetz et al (1982) found that 12 to 16 year old Victims were physically weaker than children rated as not involved in bullying, and they were also more likely to be obese. Olweus (1978) also found that Victims were considered to be physically weak by their teachers. Hodges et al (1997) also found that victims were rated as being weak by their peers (Mean age 11 years, 2 months). Hodges and Perry (1999) also report that physical weakness is a risk factor in victimisation a year later during middle childhood and preadolescence. However, due to the unstable nature of victimisation at the ages being studied here (Kochenderfer &

Ladd 1996; Chapter Three) it is not expected that there will be any significant difference between Victims and other children.

Lagerspetz et al (1982) reported that Bullies were considered as being physically stronger than other children by their teachers. However, Byrne (1994) has disputed this and found that a proportion of bullies were actually rated as being small in size.

However, these studies have been conducted with older children. There appear to be developmental trends in the types of bullying used by children. Younger children tend to use direct methods of bullying, but are unlikely to use indirect methods of bullying which are more common in older groups (Björkqvist et al 1992; Rivers & Smith 1994; Chapter Three). These types of bullying may be differentially related to physical strength. Physical strength may be advantageous in direct encounters as the Bully's physical presence may intimidate other children. It may be less important in bullying which does not involve a confrontation between the Bully and Victim (i.e. indirect bullying).

5.1.1 Aims and Hypotheses:

Aim One: To investigate the relationship between bullying role and physical strength and any influences of gender.

Hypothesis One: Victims will not be weaker than other children due to the unstable nature of victimisation at this age.

Hypothesis Two: Bullies will be stronger than other children.

5.2 Method

5.2.1 Participants

See 3.3.1.1

5.2.2 Assessments

- Role in Bullying

Peer, self and teacher nominations for the role taken in bullying, described in 3.3.1.2.

- Physical strength assessment

Teachers were given a sheet on which the name of each pupil in their class who was participating in the study was printed next to a scale of one to five (see Appendix Seven). The teachers were asked to rate each child in their class on their physical strength. Ratings were made on a 5 point scale from:

1 – Weak

2 – Quite Weak

3 – Average

4 – Quite Strong

5 – Strong

5.2.3 Procedure

See Section 3.3.1.3.

5.3 Results

5.3.1 Average scoring on physical strength assessments.

The mean score on physical strength was 2.92 with a standard deviation of 0.77.

5.3.2 Gender differences in physical strength as assessed by teachers

An unrelated samples t-test revealed that boys were rated as significantly stronger than girls [$t(102) = -2.57, p < 0.05$]. Girls' mean score 2.75 (s.d. 0.76), boys' mean score 3.13 (s.d. 0.73).

5.3.3 Age differences in physical strength within the class

As teachers rated the physical strength of their pupils in relation to other members of the class it was not meaningful to compare the ratings of children in each year group. However, it was possible to examine the relationship between strength ratings and age.

There was no significant correlation between age and physical strength rating [$r = -0.06$, n.s.].

5.3.4 Differences between the bullying roles in terms of physical strength.

a) Peer nomination

An ANOVA was performed to examine whether children in the various peer nominated bullying roles (Bully, Victim, Defender and Bystander) were rated by their teachers as being significantly different in terms of physical strength. It was found that there was a significant main effect of peer nominated role on ratings of physical strength [$F(3, 93) = 3.62, p < 0.05$]. Post hoc tests with Tukey HSD revealed that Bullies were rated as being significantly stronger than Victims ($p < 0.05$) and Bystanders ($p < 0.05$). See Table 11.

As there were significant differences in ratings of physical strength for boys and girls, gender was controlled for in the following analyses. An ANCOVA was performed in order to examine whether there were any significant differences in physical strength between the peer nominated bullying roles, with gender as the covariate. When gender was partialled out, it was found that there was no significant effect of bullying role on estimation of strength [$F(3, 92) = 1.88$, n.s.].

Table 11: Mean estimations of physical strength by peer nominated bullying role (standard deviations in parenthesis).

Peer nominated bullying role	Mean teacher estimation of strength		
	total	boys	girls
Bully	3.32 (0.73)	3.27 (0.70)	3.63 (0.95)
Victim	2.74 (0.86)	3.50 (0.58)	2.58 (0.84)
Defender	2.79 (0.64)	3.00 (0.82)	2.73 (0.60)
Bystander	2.74 (0.76)	2.81 (0.80)	2.69 (0.75)

Using the continuous peer nominations received for each role partial correlations were performed between Bully, Victim and Defender nominations and physical strength, partialling out the effects of gender. This was done in order to examine the extent to which the roles were related to physical strength. Teacher rated physical strength

correlated significantly with peer nominations for Bully [$r = 0.25, p < 0.05$]. Teacher rated physical strength did not correlate significantly with Defender nominations [$r = -0.03, n.s.$] or Victim nominations [$r = 0.08, n.s.$].

A regression was performed in order to examine whether physical strength contributed to the variance in bully nominations above gender. The 2 independent variables were entered stepwise. Gender accounted for 14% of the variance in Bully nominations [$F(1, 102) = 17.09, p < 0.01$]. Physical strength significantly predicted Bully nominations [$t = 2.54, p < 0.05$] and when physical strength was entered into the model it accounted for a further 5% of the variance [$F(2, 101) = 12.21, p < 0.01$]. See Table 12. Regressions revealed that physical strength did not significantly predict Victim or Defender nominations.

Table 12: Multiple stepwise regression analysis: Do physical strength and gender predict bullying nominations?

Variables Entered	R	R ²	R ² change	F	Beta
BULLY					
1. Gender	0.38	0.14		17.09**	0.38
2. Teacher rated physical strength	0.44	0.19	0.05	12.21**	0.23

* $p < 0.05$; ** $p < 0.01$

The types of bullying/victimisation and physical strength

The relationship between the types of bullying (described in Chapter Three) and physical strength was examined by performing partial correlations (controlling for gender) between nominations received for each type of bullying and physical strength. It was found that teacher rated physical strength correlated positively with nominations for bullying by verbal means [$r = 0.25, p < 0.05$]. Teacher rated physical strength also correlated positively with peer nominations for bullying by rumour spreading [$r = 0.21, p < 0.05$]. Physical strength did not correlate significantly with peer nominations for bullying by social exclusion [$r = 0.16, n.s.$], or physical bullying [$r = 0.10, n.s.$].

The relationship between the types of victimisation and physical strength was also examined using a series of partial correlations (controlling for gender). It was found that physical strength did not correlate significantly with peer nominations for any type of victimisation; social exclusion [$r = -0.13$, n.s.]; physical victimisation [$r = 0.05$, n.s.]; rumour spreading [$r = 0.09$, n.s.] or verbal victimisation [$r = -0.13$, n.s.].

b) Teacher nominations

An ANOVA was performed to examine whether the teacher nominated bullying roles (Bully, Defender, Bystander and Bully/Victim) differed in teacher ratings of physical strength. It was found that there was a highly significant main effect of teacher role on ratings of physical strength [$F(3, 95) = 6.56$, $p < 0.01$]. Tukey HSD post hoc tests revealed that Bullies were rated as being significantly stronger than Defenders ($p < 0.05$) and Bystanders ($p < 0.05$), but not Bully/Victims. Bully/Victims were rated as being significantly stronger than Defenders ($p < 0.05$) and Bystanders ($p < 0.01$).

As ratings of physical strength were found to be significantly different for boys and girls, an ANCOVA was performed to examine whether there was a significant difference between children taking the different roles in bullying based on teacher ratings, with gender as a covariate. There was a main effect of teacher rated role on ratings of physical strength [$F(1, 94) = 6.06$, $p < 0.05$]. Simple contrasts compared Bullies' physical strength with each of the other groups. It was found that Bullies were significantly stronger than Defenders ($p < 0.05$) and Bystanders ($p < 0.01$). However there was no significant difference between Bullies and Bully/Victims in physical strength. [See Table 13].

Table 13: Mean estimations of physical strength by teacher nominated bullying role (standard deviations in parenthesis).

Teacher bullying nominated role	Teacher rated physical strength		
	total	boys	girls
Bully	3.35 (0.61)	3.44 (0.53)	3.25 (0.71)
Defender	2.58 (0.51)	3.00 (0.00)	2.50 (0.53)
Bystander	2.75 (0.76)	2.93 (0.68)	2.58 (0.80)
Bully/Victim	3.50 (0.81)	3.80 (1.10)	3.25 (0.42)

c) Self nominations

An unrelated samples t-test was performed to examine whether there was any significant difference in the teacher ratings of physical strength of children who self nominated as Victims and those who did not self nominate as Victims. It was found that there was no significant difference between the groups in terms of physical strength [$t(98) = -0.75$, n.s.]. Mean ratings; Victims 2.96, s.d. 0.83; Non victims 2.83, s.d. 0.62.

An unrelated samples t-test also revealed no significant difference in the teacher ratings of physical strength of children who self nominated as Defenders and those who did not self nominate as Defenders [$t(98) = 0.07$, n.s.]. Mean ratings; Defenders 2.92, s.d. 0.78; Non defenders 2.93, s.d. 0.77.

When gender was entered as a covariate there was still no significant effect of self nominated role for victims and non victims [$F(1, 97) = 0.95$, n.s.]. Neither was there a significant difference in physical strength between children who self nominated as Defenders and those who did not [$F(1, 97) = 0.00$, n.s.].

5.3.5 Predictions of behaviour after a 3.5 – 4 month interval

Multiple stepwise regressions were performed in order to examine what predicts peer nominations for bullying, victimisation and defending 3.5 to 4 months later. A series of predictor variables (including teacher rated physical strength and gender) were entered (See Appendix Fourteen for full list). It was found that initial bully nominations accounted for 68% of the variance in bully nominations after an interval of 3.5 to 4

months. In addition, initial defender nominations accounted for 25% of the total variance in peer nominations for defender at time two. However, initial victimisation nominations did not significantly account for any of the variance in victimisation at time two. However, it was found that teacher rated physical strength did not significantly add to the predictive power of the models. Physical strength did not significant account for the variance in later nominations for bullying [$t = -0.43$, n.s.]; victimisation nominations [$t = -0.27$, n.s.]; or defending [$t = -0.77$, n.s.]. (See Appendix Fourteen for full details). This was still true when initial levels of defending, victimisation and bullying were not included in the regression and the other variables were entered simultaneously [See Appendix Fourteen].

5.4 **Discussion**

There was found to be a significant effect of gender on teacher ratings of physical strength, with boys significantly stronger than girls.

5.4.1 **Bullies**

The predictions made by Hypothesis Two was supported and Bullies were found to be the strongest children within the group, with above average physical strength ratings. Peer nominated Bullies were the strongest of the peer nominated bullying groups, and were significantly stronger than Bystanders and Victims. However, when gender was entered as a covariate it was found that there was no significant overall main effect of bullying role on teacher ratings of physical strength. Yet it was found that nominations for bullying were significantly and positively correlated with ratings of physical strength even when the effects of gender were controlled for. In addition, it was found that gender accounted for 14% of the variance in bullying nominations and that physical strength made a significant addition to the predictive value of the model, accounting for an additional 5% of the variance in bullying nominations. This suggests that peer nominated Bullies are stronger than other children, but that this is mostly due to the fact that most boys are Bullies (Chapter Three), who are stronger than girls. This finding deserves replication as gender differences in the relationship between bullying and physical strength have not been examined in other samples. A larger sample size would

enable these analyses to be carried out separately for boys and girls in order to examine whether physical strength had a differential influence on bullying by boys and girls.

Teacher rated Bullies were also rated as being above average strength and were found to be significantly stronger than Defenders and Bystanders, although they were not significantly stronger than Bully/Victims. This effect was still apparent when gender was entered as a covariate. The more robust relationship between teacher rated roles and teacher rated physical strength may be a reflection of the methodology used. In other words, it may be an effect of shared method variance. These were not blind ratings and the teachers may have brought their own expectations about the relationship between bullying and physical strength to their ratings.

The types of bullying nominated by peers that correlated with physical strength when the effects of gender were partialled out were verbal and rumour spreading. Peer nominations for physical bullying and social exclusion did not correlate significantly with teacher ratings of physical strength. These findings were not as predicted as it was hypothesised that physical bullying, verbal bullying and social exclusion may be related to physical strength, but that it would be less likely that rumour spreading would be related to physical strength. These predictions were made on the assumption that physical strength would be an advantage to direct Bullies as their physical presence may intimidate other children. This may be less important in situations of indirect bullying. Indirect bullying, by its nature, is less confrontational and therefore it may be less important to be physically strong. At this point it is difficult to interpret these findings and a replication of this finding may be necessary. It would also be relevant to examine other physical characteristics such as height and weight in addition to physical strength.

Overall, these findings suggest that although the gender difference may go some way to account for why peer nominated Bullies are stronger than other children, physical strength still has an additional contribution to bullying nominations beyond gender. Teacher nominated Bullies were nominated by teachers as being stronger than other children (with the exception of Bully/Victims) and this effect was apparent even when gender was accounted for. These findings show some support for the findings of

Lagerspetz et al (1982), although the present research also found evidence of gender effects.

It should be noted that the method used to obtain an indication of physical strength was not objective. It relied on teacher reports which were not made blind with regard to the bullying role (as teacher nominations for bullying role were obtained). This may account for the robust relationship between teacher rated bullying role and teacher rated physical strength, a consequence of shared method variance. A more objective measure of physical strength may overcome this limitation.

The study did not examine the direction of this relationship; whether physical strength predisposes an individual to bullying or whether by bullying, an individual's social reputation as being physically strong is enhanced. However, it was found that, although initial bully nominations accounted for a significant proportion of the variance in bully nominations at retest, neither gender nor physical strength added significantly to the predictive power of the model. This suggests that it is the initial bullying which is more important in predicting bullying after 3.5 to 4 months, rather than gender or physical strength.

5.4.2 Victims

As predicted by Hypothesis One, Victims were not found to be significantly weaker than their peers. Peer nominated victims were not significantly weaker than peers when gender was accounted for. Children who self nominated as Victims also did not differ significantly from those who did not self nominate as Victims in teacher rated strength. Peer nominations for victim did not correlate significantly or negatively with ratings for physical strength.

This finding is not as predicted by previous research with older children which has suggested that Victims are the weaker individuals (Lagerspetz et al 1982; Olweus 1978, 1993b; Hodges et al 1997; Hodges & Perry 1999). In addition, initial levels of peer nominations for victimisation and teacher ratings of physical strength did not significantly account for any of the variance in Victim nominations after an interval of

3.5 to 4 months. It is suggested that this may be related to the unstable nature of the Victim group at this age. As discussed in Chapter Three, children at this age are rarely victimised over long periods of time and for many children the experience of being victimised is transient. However, by middle childhood Victim status is a stable experience for many children. This study does not investigate the mechanisms by which Victims come to be rated as the weaker children within the class, however two are suggested. It is possible that Bullies 'pick out' those children who are weaker and they are the individuals who become stable Victims. In addition, it is also probable that if an individual is being victimised then others will perceive him/her as being weaker than other children. In other words, a 'halo' effect may be operating. Longitudinal studies and more objective assessments of strength are needed to examine this more closely.

5.4.3 Defenders

It was found that children who were nominated by peers as Defenders were not significantly stronger or weaker than their peers. In addition, peer nominations for Defender did not correlate significantly with strength ratings. Teacher nominated Defenders were significantly weaker than Bullies, but not significantly stronger or weaker than any other children. Self nominated Defenders were not significantly stronger or weaker than children who did not self nominate as Defenders. Initial levels of peer nominations for defending significantly accounted for 25% of the variance in later nominations for Defender. However, physical strength did not significantly add to this. Overall these findings suggest that Defenders were of average strength. Therefore, in order to defend others it may be that an individual does not necessarily need to be physically strong. Other factors such as social skills (Chapter Six) or social status (Chapter Seven) may be more important in enabling an individual to exhibit defending behaviours.

5.5 Summary

In summary, the findings of this chapter suggest that Bullies are slightly stronger than other children and that bullying is related to physical strength as it has been suggested in older groups (Lagerspetz et al 1982). However, this relationship is also related to

gender, with boys being stronger than girls and being more likely to be Bullies than girls. The direction of the relationship between physical strength and bullying is unclear at present. It is possible that physical strength may precede or predispose individuals to bullying or the social reputation gained by being a Bully might influence others' perceptions of Bullies' strength (halo effect).

In contrast, young Victims are not weak, at least in comparison to other non-bullying children, as some research has suggested (e.g. Lagerspetz et al 1982; Olweus 1978, 1993b). In fact, they are of approximately average physical strength. This finding may be related to the unstable nature of victimisation at this age as very few children at this age are consistently victimised (Chapter Three and Kochenderfer & Ladd 1996). It is possible that weaker children may later on become more at risk of stable victimisation. In addition, stable victimisation may result in others perceiving the individual to be weaker (halo effect).

Chapter Six: Cognitive characteristics of children taking different roles in bullying

Overview of chapter six

This thesis has already considered the social nature of bullying and Chapter Seven will discuss the social standing of children taking different roles in bullying. Bullying has been suggested as being a somewhat skilful, if unpleasant, behaviour. Research with older children has shown Bullies to have reasonably good theory of mind abilities which have been suggested as providing the skills to bully effectively (Sutton et al 1999ab), especially as related to indirect bullying which is socially motivated in nature and is thought to require careful consideration of what others are thinking (Kaukiainen et al 1996, 1999; Björkqvist et al 2000). However, the nature of bullying in younger groups does appear to differ somewhat from bullying in older samples, with less reliance on sophisticated forms of bullying such as indirect bullying and more use of direct bullying (see Chapter Three; Björkqvist et al 1992). It would be important to find out whether theory of mind and executive functioning relate to these earlier forms of bullying.

This chapter will discuss the relationship between bullying and cognitive skills, expanding upon previous research by considering a wider range of cognitive and executive abilities in relation to the role taken in bullying. The findings will be considered within a developmental framework of bullying.

6.1 Introduction

This chapter examines some of the cognitive correlates associated with the role taken by children in bullying situations. It presents evidence which suggests that young Bullies may be comparatively unskilled socially and that this may relate to the nature of bullying in groups of young children.

In Chapter One the view that bullies are social inadequates, exhibiting distorted or deviant processing of social information was outlined. This hypothesis appears to have arisen from the work based on aggression generally and may be derived from a model of social information processing (SIP) by Crick and Dodge (1994). However, these studies

have not directly examined the social cognitive skills of Bullies. To date, only Sutton et al (1999ab) have directly examined the theory of mind abilities of children who bully others. The stereotypical view of Bullies as physically strong, but socially unskilled individuals has been challenged by Sutton et al's research with 7 to 10 year olds. They report that ringleader Bullies are no less skilled in their understanding of other minds than other children (although this was accompanied by a lack of empathetic understanding) and in fact, it is the Victims who perform poorly on these tasks. They have suggested that these skilful ringleader Bullies need good social understanding in order to function as an effective Bully. These skills would empower them with the abilities to choose an appropriate victim, a time and place that would minimise detection and to match the style of bullying to the victim in order to cause the most distress.

Indirect or relational types of bullying may involve more social cognitive skills than physical or verbal forms of bullying as they require an understanding of another's point of view (Sutton et al 1999a). This has been confirmed by the positive correlation found between indirect aggression and peer-rated social intelligence (Kaukiainen et al 1996, 1999; Björkqvist et al 2000). Björkqvist et al (2000) report high correlations between indirect aggression and social intelligence but low correlations between physical aggression and social intelligence. However, indirect bullying is a strategy not often used by very young children (see Chapter Three). Björkqvist et al (1992) also report that 8 year olds are less likely to use indirect aggression than teenagers. It is thought that indirect aggression is a more sophisticated method of bullying. Therefore, younger Bullies may rely less on socially skilled manipulation than older Bullies, so theory of mind abilities and deception skills may not be superior in the younger group of Bullies.

It is also suggested that in order to be able to be successful at indirect bullying it would be advantageous to have good planning abilities and not to be impulsive. However, these skills may be less evident in younger Bullies who are more reliant on direct forms of bullying such as hitting and name calling. These children may actually have poorer planning skills and inhibitory control than other children as they may be less able to control their aggression. Research into the executive abilities in relation to aggressive/antisocial behaviour has also implicated poorer performance on tasks

assessing planning skills and inhibitory control (e.g. Séguin et al 1999; Séguin et al 1995; Hughes et al 1998; Hughes & Richards 1998; Hughes et al 2000).

The second aim of this chapter was to examine the theory of mind, deception and executive function abilities of Victims. Due to the unstable nature of Victim status at this age (see Chapter Three), it was hypothesised that the Victim group would be indistinguishable in terms of their theory of mind abilities and executive function performance from other children. This is in contrast to the Victim group in Sutton et al's (1999b) study who were found to perform poorly on theory of mind tasks. However, these children were in middle childhood and it can be assumed that victimisation was a relatively stable experience for them.

The third aim was to examine the social skills of Defenders. It was hypothesised that the social skills of Defenders may be fairly considerable. They may defend others from bullying as a result of their insight into the Victims' plight. In addition, good social skills, planning and inhibitory control may enable one to defend more effectively. Hala et al (1991) found that teacher and parent ratings of social maturity covaried with false belief understanding. Watson et al (1999) false belief understanding predicted a significant amount of variance in positive social skills (even when age and verbal ability were controlled for). Björkqvist et al (2000) also report positive correlations between social intelligence and peaceful conflict resolution. As reported in Chapter One, Nelson and Crick (1999) examined the social information processing abilities of prosocial children (10 to 12 years old) in relation to non aggressive, non prosocial children and found that prosocial children process social information slightly differently to other children. Sutton et al (1999b) also reported that Defenders were performing well on tasks assessing theory of mind. The cognitive abilities of young defenders have not yet been assessed.

6.1.1 Aims and Hypotheses:

Aim One: To examine the relationship between the role taken in bullying and performance on tasks assessing social cognition and executive function.

Hypothesis One: Victims will not exhibit poor social cognitive and executive function performance, reflecting the unstable nature of victimisation at this age.

Hypothesis Two: Bullies will show good social cognitive and executive function performance.

6.2 Method

6.2.1 Participants

See 3.3.1.1

6.2.2 Assessments

- Role in Bullying

Peer, self and teacher nominations for the role taken in bullying, described in 3.3.1.2.

- Verbal ability

The short version of the British Picture Vocabulary Scale (Dunn et al 1982) was administered individually and scored according to the guidelines. The BPVS standardised score was used for analysis purposes in this chapter.

- Theory of Mind Battery

Each of the tasks were administered three times (with slight variations) in order to minimise the possibility that the results were reached by chance.

- Deceptive Box Task - This task assesses first order false belief understanding, i.e. the understanding that someone else can hold a belief which is not true. It was based on the Smarties Task (Perner et al 1987). The child was shown a Smarties tube and was asked "What do you think is inside here?" (the correct answer being "Smarties", "sweets" or "chocolate"). The experimenter then said "Let's have a look inside". The tube was then opened and the true contents (a pencil) were shown to the child. The experimenter then said "Oh look it's a pencil. So, what's inside of the tube?" (the correct answer being "pencil"). The tube was then closed with the pencil inside. The experimenter then asked the child "What do you think X (the next person on the list) who hasn't played this game yet will think is inside the tube?" This was the

false belief question. If the child understood first order false belief they would answer correctly that the next child would answer “Smarties”. The child was then asked “What is really in the tube?” (reality question). The correct answer being “pencil”. They were also asked “What did you think was in the tube at the beginning before I opened it?” (memory control question). The correct answer being “Smarties”. Only if the child answered each of these questions correctly was he/she deemed to have passed this task. If the child failed the control questions they were excluded (i.e. not rated as false belief failure). The task was repeated on three separate days using different containers and deceptive contents.

- First Order False Belief Task – This task assesses first order false belief in a different task. This was based on the Sally and Anne Task (Baron-Cohen et al 1985). The individual was shown two dolls which were identical except for the colour of their hair and clothes. The experimenter then said “This doll is called Sally and this one is called Anne.” The child was then asked to point to which doll was Sally and which was Anne “Which one is Sally, can you point to her? Which one is Anne, can you point to her?”. Then they were asked to name each doll “What is this one called? And what is the other one’s name?” Once they were able to do this the rest of the task continued. They were then shown 2 boxes (colour co-ordinated with the dolls). They were told that each doll had her own box, but that only Sally had a marble. The experimenter said “Look Sally has got a yellow box which matches her dress and Anne has got a blue box which matches her trousers. Sally is lucky because she’s got a marble as well.” The children were then asked to put Sally’s marble into her box “Can you put Sally’s marble in her box?” (to ensure that they knew which box belonged to which doll). They were then told “Sally is going out” (she was hidden under the table). Next, they were told “Anne is a little bit naughty and she likes to play tricks on Sally. She wants to move the marble from Sally’s box and put it in her own. Can you help her?” The children were encouraged to ‘help’ Anne to move the marble into her box. Then Sally was brought back and the children were asked “Where will Sally look for the marble?” (false belief question). The correct answer being in her own box. They were then asked “Where is the marble really?” (reality question). The correct answer being in Anne’s box. They were also asked “Where

was the marble at the beginning?” (memory question). The correct answer being in Sally’s box. Only if the individual answered all of these questions correctly were they considered to have passed this task. If they answered the control questions incorrectly, they were not deemed as failing the false belief task, but were excluded from analysis. The task was repeated on 3 separate days using different hiding locations. (See Appendix Eight).

- Second Order False Belief Task – (Riviere, personal communication). This task assesses second order false belief, i.e. a belief about a false belief. It involved the 2 dolls, Sally and Anne (the same as in the previous experiment) and a toy house. The children were shown the two dolls and told “This one is called Sally and this one is Anne.” They were asked to point to Sally and to Anne “Can you point to Sally? Can you point to Anne?” They were also asked to name the dolls “What is this one called? What is her name?” Once they were able to do this correctly the main task was carried out. They were then shown 2 boxes (colour co-ordinated with the dolls). They were told that each doll had her own box, but that only Sally had a marble. The experimenter said “Look Sally has got a yellow box which matches her dress and Anne has got a blue box which matches her trousers. Sally is lucky because she’s got a marble as well.” The children were then asked to put Sally’s marble into her box “Can you put Sally’s marble in her box?” (to ensure that they knew which box belonged to which doll). Up to this point the procedure was the same as in the first order false belief task. They were then told “Sally is going out”. However, they were then told in an exaggerated whisper, “Sally isn’t really going out, she’s going to watch Anne through the window of the house to see what Anne is up to, but Anne won’t see her.” Sally was then placed behind the house with her head peeping through the window. The child was reminded that Anne did not know that Sally was watching her “Look, Sally is watching through the window, but Anne hasn’t seen her”. They were then told “Anne wants to move the marble from Sally’s box and put it in her own. Can you help her?” The child was encouraged to ‘help’ Anne to move the marble. As they moved the marbled they were again reminded “Sally is watching, but Anne hasn’t seen her”. Sally was then returned and the child was asked “Where will Sally look for the marble?” (true belief question). The correct

answer being in Anne's box. They were then asked "Where does Anne think that Sally will look for the marble?" (second order false belief question). The correct answer being in Sally's box. They were also asked "Where is the marble really?" (reality question). The correct answer was in Anne's box. They were asked "Where was the marble at the beginning?" (memory question). The correct answer was in Sally's box. The experimenter asked "Did Sally see Anne move the marble?" (memory question). The correct answer was yes. Finally the child was asked "Did Anne know that Sally was watching?" (memory question). The correct answer was no. Only if the individual answered all of these questions correctly were they deemed to have passed the task. If the child answered the control questions incorrectly they were excluded from analyses. The task was repeated three times with slight variations in the hiding places. (See Appendix Eight).

Past studies have found that performance over a variety of theory of mind tasks are correlated (Slaughter & Gopnik 1996; Taylor & Carlson 1997). This suggests that aggregation of scores across tasks is appropriate. Children were assigned a score ranging from 0 (no trials correct) to 9 (all trials correct).

- Deception task

The deception task devised by Sodian & Frith (1992) was employed. The task required the child to help a confederate to find a sticker and deceive a competitor in order to win the sticker for him/herself. Only the verbal deception trials were included in this study as children had been found to perform at ceiling on the sabotage trials in pilot tests. The task involved 2 conditions; a one-box deception task and a two-box deception task each requiring co-operation with a nice turtle and competition (deception) with a naughty crocodile. The tasks were presented in a fixed order; one box co-operation and one box deception, followed by two box deception and two box co-operation.

At the start of the tasks the child was told "What we are going to do is play a game where you can win some stickers. What you have to do is help the nice turtle to find the stickers and stop the naughty crocodile from finding the stickers". They were then shown the turtle stuffed toy and told "This is the nice sticker friend. When he finds a

sticker he will give you two to keep.” They were then shown the crocodile stuffed toy and told “This is the naughty sticker eater. When he finds a sticker he will eat it all up so that you get none.” The child was then asked 2 control questions, to ensure that he/she had properly understood these contingencies: (1) “What will happen if the nice turtle finds the sticker, will he keep it or will he give you two stickers?” and (2) “What will happen if the naughty crocodile finds the sticker, will he keep it or will he give you two stickers?” The test was discontinued if the child failed to answer these questions correctly. (See Appendix Nine).

One box task: The child was shown a box that it was possible to lock and they were shown how to lock and unlock the box using a key. A sticker was then placed in the box and the lid closed (but not locked). The box was then placed over the other side of the table away from the child and the experimenter. Then either the turtle or crocodile were reintroduced and the experimenter adopted a voice for each character saying (for the turtle) “Hello, I’m the nice sticker friend and when I find a sticker I’ll give you two to keep” or (for the crocodile) “Hello I’m the naughty sticker eater and when I find a sticker I will eat it all up so that you get none”. In the co-operative trial the experimenter adopted a voice for the turtle and said “I wonder if the box is locked or open? It’s such a long way away. I won’t bother coming if the box is locked.” The experimenter then said “What are you going to say? Are you going to say that the box is locked or open?” In this trial the child was required to tell the truth and help the turtle to find the sticker. In the competitive trial the experimenter adopted a voice for the crocodile and said “I wonder if the box is locked or open? It’s such a long way away, I won’t bother coming if the box is locked.” The experimenter then said “What are you going to say? Are you going to say that the box is locked or open?” This trial required the child to lie in order to prevent the crocodile from taking the sticker.

The two-box task: The child was presented with two boxes, identical except for colour. The child was then asked to hide a sticker in one of the boxes and to close the lid. Either the turtle or the crocodile was then reintroduced in the same way as described for the one-box task. In the co-operative condition the experimenter additionally said “Look it’s the nice turtle. He’s only allowed to look in one of the boxes. Which box do

you think he should look in? Can you point to it?” In this trial the child was required to tell the truth and help the turtle to find the sticker. In the competitive condition the experimenter said “Look it’s the naughty crocodile. He’s only allowed to look in one of the boxes. Which box do you think he should look in? Can you point to it?” This trial required the child to point to the box which did not contain the sticker in order to prevent the crocodile from taking the sticker.

Each child received a score out of 4 for this task ranging from 0 (no trials correct) to 4 (all trials correct).

- Executive Function Tasks:

- Inhibitory Control Task – The Day-Night Task (Gerstadt et al 1994) was administered in order to examine children’s abilities to inhibit their responses. This involved 2 tasks; a control task and an experimental task. The control task used 16 cards of 2 patterns; one with a red cross on a blue background ‘Night’ and one with a red and blue check design ‘Day’. The children were shown 2 of the cards and told that for one design they should say “Night” and for the other they should say “Day”. This was then practised 3 times and if the individual answered these correctly he/she then continued on the control task. This involved presenting the individual with 16 cards one at a time at a rate of one per 5 seconds. The order was pseudo random (N-D-D-N-D-N-N-D-D-N-D-N-N-D-N-D) where D denotes day and N, night. Responses given were recorded on a score sheet. In the experimental task the individual was then shown another set of cards and told that when they were presented with the card with a picture of a sun on it they should say “Night” and when they were shown a card illustrated with the moon and stars they should say “Day”. Training was given in the same way as for the control task. The individual was then presented with a set of 16 cards depicting the sun or moon in the same pseudo random order. Responses were recorded on a score sheet. The score was calculated as the percentage of correct responses on the experimental task (see Appendix Ten).
- Planning Task – The Tower of London (Shallice 1982) was presented to the child. The apparatus for the Tower of London task included two wooden pegboards

(approximately 250mm x 180mm x 100mm), one for the researcher and one for the child. Each board had three pegs and three wooden balls (one red, one green and one blue), each approximately 80mm in diameter. The instructions for the Tower of London task were as follows (based on Hughes 1998). The researcher said, “Here are three pegs and three balls. This set is yours and this set is mine. Can you show me the red ball? Show me the green ball and the blue ball. The balls can be arranged on the pegs to make different patterns like this one. This is called the starting position and the balls always start off like this. Now we’re going to play a game. What I am going to do is I’m going to make a pattern with my pegs and balls and I’d like you to copy it. I’ll tell you how many moves you need to make the pattern. Now, the most important thing to remember is that you can only move one ball at a time. So, if you take one ball off a peg, you have to put it on another peg before you can take another ball, ok.” The task began with a warm-up task, during which the experimenter made sure that the rules of the game were fully understood. Children were presented with twelve tasks; two 2-move tasks; two 3-move tasks; four 4-move tasks and four 5-move tasks. The coding scheme for the Tower of London was based on that described by Welsh et al (1991) and Hughes (1998). Children were presented with each task up to three times. Scoring was based on the number of trials it took for a child to successfully complete the task in the specified number of moves. Children scored three if they performed the task successfully on the first trial, this decreased with the number of attempts until they scored zero if they were still unable to complete the task in the set number of moves on the third trial. The assessment was stopped at the point when the child completed all of the tasks or was unable to complete two consecutive tasks. Therefore, scoring ranged from 36 (all successful on the first trial) to zero (none successful). (See Appendix Eleven).

Performance scores on all of the tasks were standardised by class for analyses in order that children could be compared with their classmates.

6.2.3 Procedure

See Section 3.3.1.3.

6.3 Results

Nine children were excluded from the theory of mind tasks due to an inability to answer the control questions correctly (leaving N=95). Five children were excluded from the deception task due to absence (leaving N=99). Ten children were unable to learn the rule for naming the cards and were excluded from analysis in the day-night task (leaving N=94). Five children were absent when the Tower of London assessment was carried out and three were unable to learn the rules for the task (i.e. not moving more than one ball at a time) (leaving N=96).

6.3.1 Relationship between the dependent variables:

There were significant intercorrelations between the dependent variables (see Table 14).

Table 14: Intercorrelations of cognitive task performance

	Tower of London	Day-night task	Deception
Theory of mind	0.32**	0.26*	0.30**
Tower of London		0.25*	0.31**
Day-night task			0.11

* $p < 0.05$; ** $p < 0.01$

6.3.2 Relationship between performance on the dependant variables, age and verbal ability.

Correlations revealed that theory of mind performance was significantly correlated with age and score on the BPVS. In addition, Tower of London performance also correlated significantly with age (see Table 15).

Table 15: Correlations between the cognitive variables and age and score on the BPVS.

	Age	Theory of mind	Tower of London	Day-night task	Deception
Age		0.33**	0.21*	-0.06	-0.05
BPVS	-0.02	0.31**	0.18	0.17	-0.02

* $p < 0.05$; ** $p < 0.01$

6.3.3 Gender differences in task performance

Analyses revealed no significant effects of gender on performance on the theory of mind battery [$t(93) = 0.82$, n.s.] even when age and BPVS score were partialled out [$F(1, 89) = 0.65$, n.s.]. Additionally, there was no significant effect of gender on the two tasks assessing executive function. There was no significant difference between the performance of boys and girls on the Tower of London task [$t(94) = -0.41$, n.s.], even when age was partialled out [$F(1, 93) = 0.25$, n.s.], nor was there a significant effect of gender on day-night task performance [$t(92) = 0.72$, n.s.]. An unrelated samples t-test showed that there was also no significant difference between boys and girls in terms of their performance on the deception task [$t(97) = -0.34$, n.s.].

6.3.4 Bullying role and cognitive performance

a) Peer nominated Bullying role

ANOVAs revealed that there were no significant differences between the peer nominated bullying roles in age [$F(3, 93) = 0.38$, n.s.] or BPVS [$F(3, 88) = 0.19$, n.s.]. Mean age in months; Bully 65.50 (s.d. 5.12); Victim 65.96 (s.d. 5.29); Defender 64.65 (s.d. 5.38); Bystander 65.73 (s.d. 5.48). Mean score on BPVS; Bully 89.61 (s.d. 13.37); Victim 86.39 (s.d. 16.33); Defender 88.35 (s.d. 14.62); Bystander 89.07 (s.d. 17.06).

Peer nominations for bullying role and performance on the cognitive tasks

In order to compare the cognitive task performances of individuals assigned to different bullying roles on the basis of peer nominations a series of ANOVAs and ANCOVAs were performed.

An ANCOVA controlling for age and BPVS revealed significant differences between the peer nominated bullying roles in performance on the theory of mind battery [$F(3, 82) = 3.87$, $p < 0.05$]. Planned contrasts revealed that Defenders showed superior performance on the theory of mind tasks than Bullies, although this did not reach significance ($p = 0.06$). An ANCOVA with age as a covariate revealed no significant difference between the peer nominated bullying roles in performance on the Tower of London [$F(3, 85) = 0.48$, n.s.]. There was also no significant difference between the peer nominated bullying roles in performance on the day-night task [$F(3, 86) = 2.61$,

n.s.]. The peer nominated bullying role groups did not differ significantly on deception task performance [$F(3, 89) = 1.15, n.s.$]. (See Table 16).

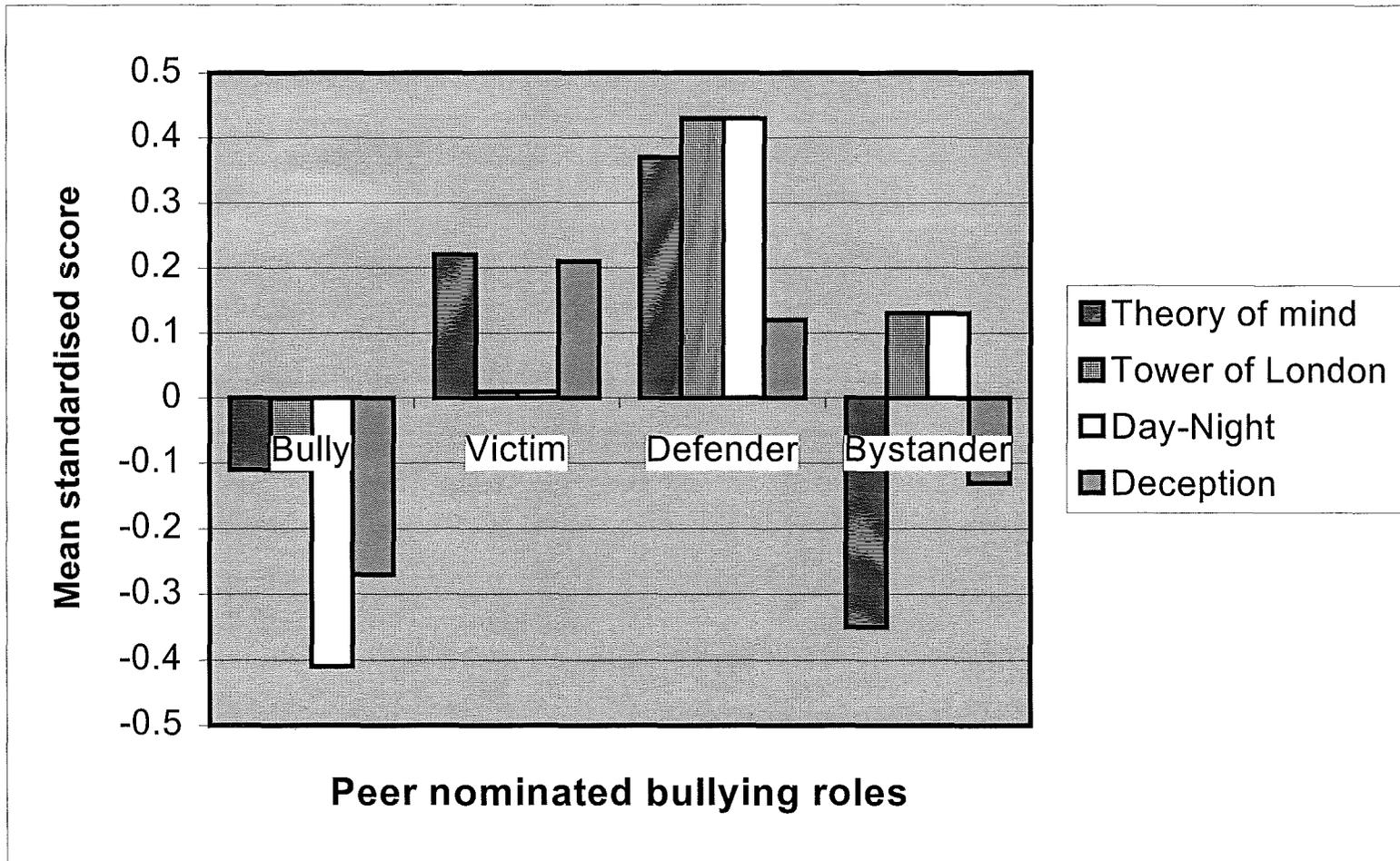
Table 16: Mean standardised scores achieved by children on the cognitive tasks by Peer nominated Bullying role (standard deviations in parenthesis)

Role	Theory of mind	Tower of London	Day-night task	Deception
Bully	-0.11 (0.98)	-0.11 (1.01)	-0.41 (1.14)	-0.27 (0.95)
Victim	0.22 (0.94)	0.01 (0.99)	0.01 (1.21)	0.21 (1.08)
Defender	0.37 (0.99)	0.13 (1.0)	0.43 (0.61)	0.12 (0.92)
Bystander	-0.35 (1.01)	-0.13 (1.07)	0.13 (0.73)	-0.13 (0.98)

Table 16 above shows the mean standardised scores on each of the cognitive tasks by children assigned by their peers to the different roles in bullying. Although not all of the differences between the roles were significant there does appear to be a trend in the data. Defenders appear to perform well on each of the tasks, performing above average on theory of mind, executive function tasks and deception. Bullies tend to perform poorly on each of the tasks, with below average performance on each. Bystanders also tend to perform below the mean on each of the tasks (with the exception of the Day-night task). Victims perform at the mean on Day-night task and Tower of London and above average on theory of mind and deception.

Figure One overleaf illustrates the patterns of performance by Bullies, Victims, Defenders and Bystanders on each of the cognitive tasks.

Figure One; Mean standardised scores on cognitive tasks by peer nominated bullying role



Peer nominations for Bullying Role and cognition

The continuous measures of the number of peer nominations received by each individual for the roles of Bully, Victim or Defender were used to examine Pearson's correlations between cognitive abilities and the extent of bullying, victimisation and defending.

There were significant positive correlations between theory of mind score and Defender nominations [$r = 0.39, p < 0.01$] and Victim nominations [$r = 0.21, p < 0.05$]. These correlations were still significant when both age and BPVS were partialled out (Defender nominations $r = 0.33, p < 0.01$ and Victim nominations $r = 0.26, p < 0.05$). Theory of mind score did not correlate significantly with the number of Bully nominations [$r = 0.05, n.s.$]. No significant correlations were found between Tower of London and Bully nominations [$r = 0.13, n.s.$]; Defender nominations [$r = 0.16, n.s.$]; or Victim nominations [$r = 0.11, n.s.$]. When age was partialled out the correlations were still nonsignificant; Bully [$r = 0.05, n.s.$]; Defender [$r = 0.16, n.s.$]; Victim [$r = 0.15, n.s.$]. No significant correlations were found between day-night task performance and Bully nominations [$r = -0.11, n.s.$]; Defender nominations [$r = 0.11, n.s.$]; or Victim nominations [$r = -0.07, n.s.$]. There was no significant correlation between deception score and Bully nominations [$r = 0.09, n.s.$]; or Defender nominations [$r = 0.06, n.s.$]. However, Victim nominations correlated significantly with deception score [$r = 0.23, p < 0.05$].

The relationship between the type of bullying and performance on the social cognitive and executive function tasks

Pearson's correlations were performed between nominations for each of the styles of bullying and performance on the battery of tasks in order to examine the extent to which the different styles of bullying were related to performance on tasks assessing theory of mind, deception, planning and inhibitory control.

Theory of mind performance did not correlate significantly with nominations for any of the types of bullying when the effects of age and BPVS were partialled out; bullying by

social exclusion [$r = 0.15$, n.s.]; physical bullying [$r = -0.04$, n.s.]; bullying by rumour spreading [$r = 0.05$, n.s.]; and bullying by verbal methods [$r = 0.02$, n.s.].

Tower of London performance also showed no significant correlations with bullying nominations; bullying by social exclusion [$r = 0.19$, n.s.]; physical bullying [$r = 0.00$, n.s.]; bullying by rumour spreading [$r = 0.06$, n.s.]; and verbal bullying [$r = 0.01$, n.s.]. When age was partialled out the correlations were still non significant.

Correlations revealed that day-night task performance did not correlate significantly with nominations for any of the styles of bullying; bullying by social exclusion [$r = -0.02$, n.s.]; physical bullying [$r = -0.18$, n.s.]; bullying by rumour spreading [$r = -0.05$, n.s.]; and verbal bullying [$r = -0.11$, n.s.].

Performance on the deception task also showed no significant correlation with any style of bullying; bullying by social exclusion [$r = 0.09$, n.s.]; physical bullying [$r = 0.08$, n.s.]; bullying by rumour spreading [$r = -0.10$, n.s.]; and verbal bullying [$r = 0.02$, n.s.].

b) Teacher nominated bullying role

There were no significant differences between the teacher nominated bullying roles in age [$F(3, 95) = 0.93$, n.s.]. Mean ages; Bully 64.94 (s.d. 4.97); Defender 64.42 (s.d. 4.89); Bystander 65.95 (s.d. 5.89); Bully/Victim 67.81 (s.d. 3.31). There was a significant effect of BPVS [$F(3, 91) = 2.86$, $p < 0.05$]. Post hoc tests (using Tukey HSD) revealed no significant differences between the teacher nominated roles on the BPVS. Mean scores on the BPVS; Defender 93.33 (s.d. 13.13); Bully 92.88 (s.d. 17.24); Bystander 89.84 (s.d. 15.32); Bully/Victim 77.64 (s.d. 10.16).

Teacher nominated bullying roles and cognitive performance

The bullying roles based on teacher nominations were also examined in relation to cognitive abilities. An ANCOVA controlling for age and BPVS performance revealed no significant differences between the teacher nominated roles on theory of mind performance [$F(3, 89) = 1.14$, n.s.]. There was also no significant difference in the teacher nominated bullying roles on Tower of London performance when the effects of

age were controlled for [$F(3, 87) = 1.47$, n.s.]. A one-way ANOVA revealed no significant differences between the teacher nominated bullying roles on Day-Night performance [$F(3, 87) = 0.43$, n.s.]. An ANOVA revealed no significant differences between the teacher nominated bullying roles on deception task performance [$F(3, 95) = 0.87$, n.s.]. (See Table 17).

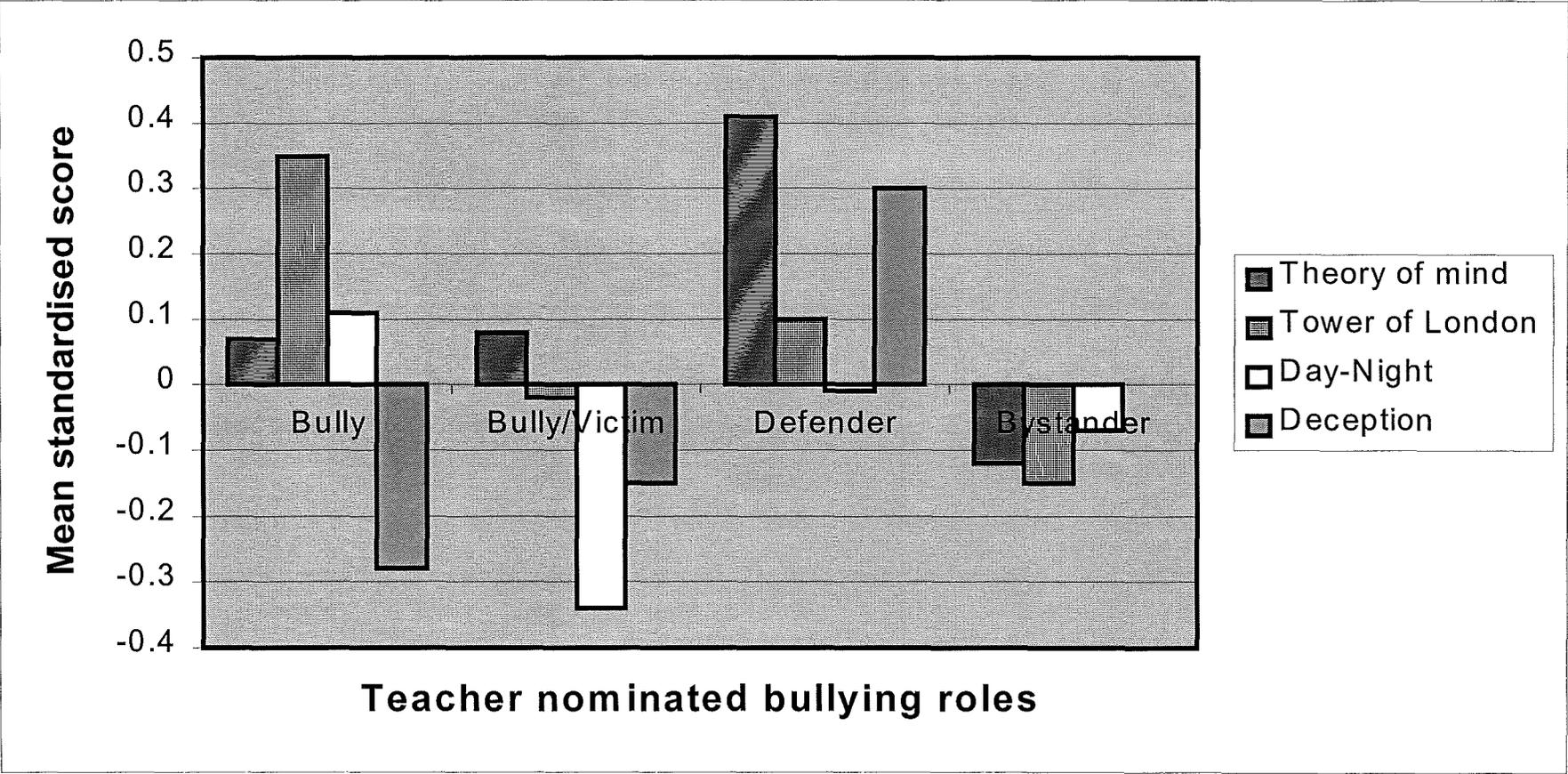
Table 17: Mean standardised scores achieved by children on the cognitive tasks by Teacher nominated Bullying role (standard deviations in parenthesis)

Role	Theory of mind	Tower of London	Day-night task	Deception
Bully	0.07 (0.99)	0.35 (0.92)	0.11 (0.95)	-0.28 (0.92)
Bully/Victim	0.08 (1.04)	-0.02 (1.02)	-0.34 (1.21)	-0.15 (1.16)
Defender	0.41 (0.80)	0.10 (0.97)	-0.01 (1.2)	0.30 (0.92)
Bystander	-0.12 (1.04)	-0.15 (1.01)	-0.07 (0.92)	0.00 (0.91)

N.B. The sum of the scores for each task do not equal zero due to the exclusion of the Bully/Defender and Victim from this table (due to small N).

Table 17 above displays the mean standardised scores on each of the cognitive tasks for children in the different teacher nominated bullying roles. Although there were no significant differences between the teacher nominated bullying groups on any of the cognitive variables there are trends in the mean scores. Teacher nominated Defenders, like peer nominated Defenders, show good theory of mind abilities. They also show good deception skills. This is illustrated more clearly in Figure Two overleaf.

Figure Two; Mean standardised scores on cognitive tasks by teacher nominated bullying role



c) Self nominated bullying roles

The bullying roles for which individuals nominated themselves were also examined in relation to cognitive abilities. Two ANCOVAs controlling for age and BPVS revealed no significant differences in theory of mind performance between children who self nominated as Defenders and those who did not self nominate as Defenders [$F(1, 89) = 1.05$, n.s.]; or between those who self nominated as Victims and those who did not self nominate as Victims [$F(1, 89) = 0.58$, n.s.].

Individuals who self nominated as defenders performed significantly better on the Tower of London task than those who did not self nominate as defenders [$F(1, 91) = 5.54$, $p < 0.05$]. Those who reported being victimised also performed significantly better on the Tower of London task than those who did not report being victimised [$F(1, 91) = 5.58$, $p < 0.05$].

There was no significant difference between children who self nominated as Defenders and those who did not self nominate as Defenders on the day-night task [$t(91) = -1.46$, n.s.] There was no significant difference in performance on the day-night task between children who self nominated as being victimised and those who did not report being victimised [$t(91) = 1.34$, n.s.].

There were no significant differences in performance on the deception task by children who self nominated as Defenders and those who did not [$t(96) = -0.56$, n.s.]; or between children who self nominated as Victims and those who did not self nominate as Victims [$t(96) = -0.24$, n.s.]. (see Table 18).

Table 18: Mean standardised scores on cognitive tasks by self nominated bullying roles (standard deviations in parenthesis)

	Theory of mind	Tower of London	Day-night task	Deception
Self nominated as Defender	0.07 (1.02)	0.17 (1.02)	0.08 (0.97)	0.02 (1.00)
Did not self nominate as Defender	-0.24 (0.92)	-0.41 (0.79)	-0.27 (1.01)	-0.11 (0.96)
Self nominated as Victim	0.06 (1.03)	0.18 (0.99)	-0.07 (1.01)	0.00 (0.95)
Did not self nominate as Victim	-0.18 (0.92)	-0.45 (0.85)	0.26 (0.86)	-0.05 (1.11)

Self nominated Defenders performed better on each of the tasks than children who did not self nominate as Defenders, although there was no significant difference on the theory of mind tasks, the inhibitory control task and the deception task, they had a significant advantage on the planning task.

Self nominated Victims also scored more highly on each of the tasks than children who did not self nominate as Victims (with the exception of the inhibitory control task on which they performed worse, although not significantly). Self nominated Victims showed a nonsignificant superiority on the theory of mind tasks and the deception task in comparison to non Victims. In addition, self nominated Victims performed significantly better than children who did not self nominate as Victims on the planning task.

6.3.5 Predictors of behaviour after a 3.5 - 4 month interval.

Multiple stepwise regressions were performed in order to examine what predicted levels of peer nominations for bullying, victimisation and defending 3.5 to 4 months later (see Appendix Fourteen). Initial nominations for bullying accounted for 68% of the variance in later bullying, and initial levels of peer nominations for defending explained 25% of the variance in later defending, although initial victimisation did not predict later levels

of victimisation. It was found that performance on the cognitive tasks did not significantly add to the explained variance in later bullying [theory of mind, $t = -0.56$, n.s.; Tower of London, $t = -1.11$, n.s.; day-night task, $t = 0.21$; deception, -0.57 , n.s.], victimisation [theory of mind, $t = -0.63$, n.s.; Tower of London, $t = -0.09$, n.s.; day-night task, $t = 0.12$; deception, 1.05 , n.s.], or defending [theory of mind, $t = -0.46$, n.s.; Tower of London, $t = -0.53$, n.s.; day-night task, $t = -0.69$; deception, -1.17 , n.s.]. See Appendix Fourteen for the results of the regressions.

Additional regressions were performed which did not include initial levels of bullying, victimisation or defending. It was found that performance on the cognitive tasks did not predict bully nominations or defender nominations after an interval of 3.5 to 4 months. Although the overall model did not significantly predict later victim nominations, performance on the theory of mind battery of tasks did significantly add to the model [$t = -2.11$, $p < 0.05$]. This suggests that children who performed less well on these tasks received more victim nominations after 3.5 to 4 months. [See Appendix Fourteen].

6.4 **Discussion**

Many of the dependent variables are interrelated. This is as expected as deception is thought to involve theory of mind skills, as in order to be able to deceive someone it is necessary to be aware of what that other person might be thinking. In addition, research into autism has found that children with autism exhibit a wide range of difficulties in theory of mind tasks and executive function skills. The theoretical and empirical grounds which suggest that theory of mind and executive function are linked are reviewed by Russell (1997).

6.4.1 **Bullies**

If we consider the relative cognitive abilities of children in the different bullying roles a pattern emerges. Peer nominated Bullies show below average performance on the theory of mind, executive function and deception tasks. Teacher nominated Bullies show slightly above average performance on the theory of mind tasks and the inhibitory control task, although they have poor deception abilities. Teacher nominated Bullies perform fairly well on the task assessing planning skills, although not significantly

better than any other bullying role groups. Overall, Bullies do not show the high levels of performance on tasks assessing theory of mind found by Sutton et al (1999ab) or predicted by Hypothesis Two. They also show poor to average levels of inhibitory control and deception abilities. This was not merely an artefact of age or verbal abilities as Bullies did not differ significantly from children in other roles in age or verbal skills.

Sutton et al (1999b) found that older Bullies (7-10 years old) were performing well on tasks assessing theory of mind. How could we account for the different cognitive profiles of older and younger Bullies? First of all, bullying does appear to take slightly different forms in the two age groups. As Björkqvist et al (1992) report, indirect methods of bullying are used more as children get older (although in middle childhood children are still less likely to use indirect methods than adolescents). Whereas, as the findings in this thesis have confirmed (See Chapter Three), younger Bullies bully others using direct methods of bullying and are unlikely to use indirect forms of intimidation. Direct methods of bullying are not linked to peer rated social cognition and, it is actually the more subtle indirect methods which have been found to be related to social cognitive abilities (Kaukiainen et al 1996, 1999; Björkqvist et al 2000). This would suggest that the type of bullying favoured by younger Bullies may not be as reliant on good social cognitive skills as the forms used by their older counterparts. In addition, the social nature of bullying has been emphasised in older samples. Salmivalli et al (1996a; 1998) and Sutton and Smith (1999) have identified children in their samples (aged between 12–15 and 7-10 years respectively) who are followers of the Bully (known as ‘Assistants’), these children do not start the bullying, but join in after the ringleader Bully has started it. It was found that young children do not nominate their classmates for taking the role of ‘Assistant’ in bullying (see Chapter Three). This suggests that either this role is not salient to them or that this is not a role taken by children in younger samples. If it is the latter rather than the former which is true this may also have implications for the social cognitive skills needed by Bullies. If, as a ringleader Bully you need to organise your gang and encourage them to join in with your bullying, having superior social cognitive abilities and executive functions would certainly be an advantage. Whereas, if Bullies work alone (as may be the case in

younger groups evidenced by the reported lack of Assistants), bullying would probably rely less on social cognitive skills and executive functions.

What could account for this disparity between the cognitive abilities of older and younger Bullies? It is suggested that this may reflect a developmental pathway relating to the social skills of Bullies. Bullies who are not detected may be those who are 'skilled' in their trade and could be those with the better social skills. If these children are not detected, they may continue in their behaviour into later childhood. Additionally, bullying, by its nature, is a social behaviour involving social interactions with others which may actually promote theory of mind and other abilities (in a similar way in which Perner, Ruffman & Leekam, 1994, have suggested that interactions with siblings promotes theory of mind development).

The regression performed revealed that performance on the cognitive tasks did not significantly account for any of the variance in later bullying nominations beyond initial levels of bullying nominations. This suggests that it is initial bullying behaviour which is predictive of later bullying, rather than performance on any of the cognitive tasks assessed in this chapter.

6.4.2 Victims

Peer nominated Victims showed slightly above average or average performance on each of the tasks (although not as good as Defenders). In addition, peer nominations for victim correlated significantly and positively with theory of mind score and deception score. Too few children were nominated by their teachers as Victims in order to perform statistical calculations with any confidence. However, self nominated Victims were found to perform slightly better (although not significantly so) than individuals who did not self nominate as Victims on theory of mind and inhibitory control. Self nominated Victims did show significantly better performance than non victims on the planning task (Tower of London).

Overall, it appears that Victims perform around average on each of the tasks, which does not support the finding of poor theory of mind understanding in Victims reported

by Sutton et al (1999b). However, this is not really that surprising if we consider the low stability of the victim role at this age (see Chapter Three) and it supports the predictions of Hypothesis One. If victims do not constitute a stable group at this age it is unlikely that they will show a clearly identifiable cognitive profile. As it is proposed that Bullies are 'trying out' a variety of targets at this age, many of these Victims will not remain as such. It is possibly not until middle childhood when Victim status is more stable that this group may be seen to be 'identifiable' in cognitive terms. Although this study does not examine the developmental trajectory of how the Victim group in middle childhood come to have poor social cognitive abilities, two possible routes are proposed. Perhaps when young Bullies try out a wide range of targets, they may then single out children with poorer social cognitive abilities and executive function skills for prolonged victimisation. It is possible that having poorer theory of mind abilities may put children at risk of being victimised as theory of mind abilities have been implicated in the understanding of other children's malevolent behaviours, such as deception. Alternatively (or perhaps in addition), being a Victim of bullying may make an individual become more isolated from the peer group and may result in fewer opportunities to develop social cognitive skills. In this study it was found that performance on the poor performance on the theory of mind tasks did predict more peer nominations for Victim 3.5 to 4 months later (although the overall model was not significant). This does not necessarily mean that poor functioning puts children at risk of repeated victimisation as this may also reflect the very fluid nature of victimisation at this age and needs to be interpreted with caution as the overall model was not significant. Further longitudinal research is needed in an attempt to untangle the risk factors and consequences of stable victimisation as children reach middle childhood.

6.4.3 Defenders

Defenders appear to show the best performance on each of the tasks. Peer and teacher nominated Defenders perform above average on theory of mind, deception, and planning tasks and peer nominated Defenders show above average performance on the inhibitory control task (day-night task). Peer nominations for Defender were also significantly correlated with theory of mind score. In addition, self nominated Defenders performed better on each of the tasks than those who did not self nominate as

Defenders (significantly so, on the planning task). These findings are in accord with previous research into the social cognitive abilities of Defenders (Sutton et al 1999b). Sutton et al (1999b) found that 7-10 year old Defenders, Outsiders and ringleader Bullies all performed significantly better than Victims on tasks assessing theory of mind. Other research has also found that theory of mind abilities are related to teachers' and parents' ratings of social maturity (Hala et al 1991) and positive social skills (Watson et al 1999). The findings of this chapter also endorse those of Nelson and Crick (1999) as they report that prosocial children process social information differently to non aggressive, non prosocial children. The finding that Defenders were performing better than many of their classmates on tasks assessing their theory of mind, planning, inhibitory control and deceptive skills can be interpreted in two ways. It is possible that socially aware children who have good theory of mind and are able to plan and carry out behaviours in a socially competent way may be better placed to understand a victimised classmate's distress and therefore may be more likely to intervene on their behalf. Alternatively (or perhaps in addition), these more socially competent children may be better placed to help, having the social skills to effectively defend others from bullying.

The regression performed indicates that performance on the cognitive tasks does not significantly account for any of the variance in later defending nominations beyond that predicted by initial nominations for defending. This suggests that it is the prosocial behaviour which is important in predicting later prosocial behaviour, rather than performance on the cognitive tasks assessed here.

6.4.4 Methodological issues and future directions

What is needed to shed more light onto the development of bully/victim problems and social cognition are studies which are longitudinal in design. In order to examine the way in which the role of social cognitive skills in bullying develop, studies need to follow Bullies from infant classes into middle childhood. It may then be possible to examine how the developing social nature and the increasing sophistication of bullying relate to social cognitive abilities. With regard to Victims, the most obvious development would be to examine whether social cognitive deficits are a cause or consequence of victimisation. This research would also benefit from longitudinal study.

6.5 Summary

In conclusion, this chapter provides evidence which suggests that young Bullies, far from being the socially skilled manipulators reported in older samples, are actually performing below average on tasks assessing social cognitive abilities. This is hypothesised as being related to the nature of bullying in younger samples; less gang led and less sophisticated. In contrast, Defenders are the most socially able children in the group which may put them in a position to defend more effectively and be more understanding of the Victim's plight. Victims are average in social cognitive abilities. This is suggested as being related to the unstable nature of victimisation within this age group.

Chapter Seven: Peer relationships of children involved in bullying

Overview of Chapter Seven

As already discussed, many researchers now view bullying as a social process within the peer group. As such, the peer relationships of children involved in bullying are of particular interest. Previous research has found that Bully and Victim status are differentially related to peer acceptance and peer rejection. However, the majority of these studies have focussed on groups of children from middle childhood into adolescence and there is a dearth of research with children under the age of 7 years. This chapter discusses the relationship between bullying and peer relationships. It will add to the previous body of research in this area by examining peer relationships at a young age.

7.1 Introduction

This chapter examines the peer relationships of children involved in bullying between the ages of 4 and 6 years.

Numerous studies have investigated the relationship between the role taken in bullying and the individual's social standing and popularity within the peer group during middle childhood and adolescence. Studies have reported that bullying and victimisation are differentially related to peer rejection and acceptance. As the review of the literature in Chapter One shows, the research into the social status of Bullies in middle childhood and adolescence has not provided conclusive results. Some findings suggest that Bullies are unpopular, socially rejected members of the peer group (e.g. Foster et al 1986; Lagerspetz et al 1982), whereas others have found that Bullies were average in popularity (e.g. Olweus 1978; Stephenson & Smith 1989). Some researchers have reported that although they may be rejected by the peer group, Bullies are popular with some peers (Boulton & Smith 1994; Cairns et al 1988). It also appears that Bullies choose friends who are similar to them in terms of aggression (Poulin et al 1997; Salmivalli et al 1997). The relationship between peer rejection or acceptance and bullying behaviour may differ with age. Research investigating children's approval/disapproval of aggressive behaviour has found that young children are less

approving of aggression than older children (Huesmann & Guerra 1997) and have been found to be more disapproving of bullying (Rigby 1997; Menesini et al 1997). Patterson et al (1989) have also suggested that the relationship may be age related. They suggest that young aggressors are socially rejected, but may later on become popular members of a delinquent social group.

The general consensus in the literature regarding victims is that they tend to be less popular and more rejected than other children (Olweus 1978; Boulton & Smith 1994; Perry et al 1988; Salmivalli et al 1996a; Lagerspetz et al 1982). Slee and Rigby (1993) reported that the tendency to be victimised correlated negatively with self appraisals of number of friends and popularity. Boulton and Underwood (1992) found that victims reported being unhappy and lonely at school and as having few friends. Salmivalli et al (1997) noted that adolescent Victims were least likely to belong to a social network, or they associated with children who defended and supported them. The relationship between victimisation and peer rejection may also be age related due to the nature of victimisation; being a short-term experience for most children between 3 and 5 years and 4 and 6 years (Kochenderfer & Ladd 1996; Chapter three). The relationship between victimisation and social rejection may not appear until middle childhood when victimisation is a stable experience for many Victims. This would suggest that Victims at the age of 4 – 6 years would not differ as a group from other non-bullying children and that it would not be until later that victimisation is strongly related to rejection.

Very little research has investigated the peer relationships of those individuals who defend the Victims of bullying. Salmivalli et al (1996a) found Defenders to be the most popular children in the peer group during the teenage years. Additionally, Foster et al (1986) found that sharing and providing help and support were associated with peer acceptance. Salmivalli et al (1997) also found that children who were Defenders were likely to form friendships with children who had a similar bullying profile (i.e. other Defenders).

7.1.1 Aims and Hypotheses:

Aim One: To examine the relationship between the roles taken in bullying and social rejection and acceptance and reciprocal liking.

Hypothesis One: Victims will not be socially rejected at this age and will not form social networks with other Victims due to the unstable nature of victimisation in early childhood.

Hypothesis Two: Bullies will be socially rejected, but will form social networks with other Bullies.

Hypothesis Three: Defenders will be the most popular children in the class and will form social networks with other Defenders.

7.2 Method

7.2.1 Participants

See 3.3.1.1

7.2.2 Assessments

- Role in Bullying

Peer, self and teacher nominations for the role taken in bullying, described in 3.3.1.2.

- Sociometric Status

Children were asked to nominate the three classmates they liked most and the three they liked least. Sociometric status was calculated by the method described by Coie et al (1982).

- Number of Reciprocal Like Most nominations

The sociometric data was additionally used as an indication of reciprocal liking by counting the number of reciprocal like most nominations each child received. This was on a scale of 0 (no reciprocated like most nominations) to 3 (all three like most nominations reciprocated).

- Observations in the Playground

Observations were made of the children in the playground using an all-or-none time-sampling technique over 30 second intervals. The observations were carried out each lunchtime and break-time for between 2 and 3 weeks until 20 observations (a total of 10 minutes of observations) were made of each child involved in the study. Observations were made for; being with a group of other children; being alone; or being with an adult (described in more detail in 2.2.2.12) in addition to other categories (discussed in 3.3.1.2). The individual was noted as being observed with a group, alone or with an adult if they were in the situation for 5 seconds or longer. The percentage of observation points spent either with a group, alone, or with an adult was calculated for each individual. The sum of these observations for any individual could total over 100% as children could be observed in more than one situation in each 30 second observation period. Observations were carried out by 2 observers (the author and Cheryl Blackadder), interobserver agreement was high, kappas: 1.00 with adult; 1.00 with peers; 0.82 alone (see 2.2.2.12 for more details).

7.2.3 Procedure

See Section 3.3.1.3.

7.3 Results

7.3.1 Sociometric status

This was calculated from the peer nomination data. Status assignments were Average 36%; Popular 13.5%; Rejected 11.5%; Neglected 9%; Controversial 8%. In addition 23% could not be assigned to a sociometric status group. Due to small N the Neglected and Controversial status groups were not included in subsequent analyses. Chi-square analysis revealed that there was no significant difference in sociometric status (Average, Popular and Rejected) by gender [$\chi^2(2) = 2.38$, n.s.].

7.3.2 Sociometric status and role nominations from peers

Table 19 illustrates the relationship between sociometric status, and nominations for roles from peers. One-way ANOVAs were performed in order to examine any differences between the sociometric status groups; popular, rejected and average

(independent variable) in terms of the number of peer nominations they received for Bully, Victim and Defender (dependent variables). There was no significant difference between the sociometric status groups in relation to Victim nominations [$F(2, 60) = 2.06$, n.s.]. However, there was a significant difference between the sociometric status groups in the number of Defender nominations received [$F(2, 60) = 4.65$, $p < 0.05$]. Post hoc Tukey HSD tests revealed that Popular children received significantly more Defender nominations than Average children ($p < 0.05$), although not significantly more than Rejected children. There was also a significant difference between status groups in the number of Bully nominations received [$F(2, 60) = 7.33$, $p < 0.01$]. Post hoc Tukey HSD tests revealed that Rejected children received significantly more Bully nominations than Popular children ($p < 0.01$) and significantly more Bully nominations than Average children ($p < 0.01$).

Table 19: Mean number of peer nominations for Bully, Victim and Defender by Sociometric Status Group (standard deviations in parenthesis).

Sociometric Status	Mean number of Defender nominations	Mean number of Bully nominations	Mean number of Victim nominations
Popular	4.50 (2.35)	3.07 (2.27)	4.64 (2.62)
Rejected	2.83 (2.04)	6.92 (4.80)	3.75 (1.60)
Average	2.73 (1.64)	3.14 (2.66)	3.32 (1.97)

7.3.3 Sociometric status and types of bullying

One-way ANOVAs were carried out on sociometric status; popular, rejected and average (independent variable) and number of nominations for each type of bullying; social exclusion, rumour spreading, physical bullying and verbal bullying (dependent variables). There was a significant difference by sociometric status in the number of nominations received for bullying by social exclusion [$F(2, 60) = 3.97$, $p < 0.05$], physical bullying [$F(2, 60) = 5.18$, $p < 0.01$], bullying by rumour spreading [$F(2, 60) = 6.45$, $p < 0.01$], and verbal bullying [$F(2, 60) = 5.82$, $p < 0.01$]. Tukey HSD post hoc tests revealed that Rejected children received significantly more nominations than Average children for bullying by rumour spreading ($p < 0.01$), bullying by social exclusion ($p < 0.05$), verbal bullying ($p < 0.01$) and physical bullying ($p < 0.01$). Rejected children

also received significantly more nominations than Popular children bullying by rumour spreading ($p<0.05$), bullying by social exclusion ($p<0.05$), verbal bullying ($p<0.01$) and physical bullying ($p<0.05$).

7.3.4 Bullying Role and Social Acceptance / Social Rejection

The relationship between Like Most and Like Least scores and bullying role, as assessed by peers, teacher and self was examined.

(a) Peer nominations:

The mean standardised Like Most and Like Least scores for children in different bullying roles according to their peers are shown in Table 20. Two ANOVAs were performed on Role and Gender, with standardised Like Most scores and Like Least scores as the dependent variables. A significant main effect of peer nominated Role was found for Like Most [$F(3, 89) = 3.50, p<0.05$]. There was no significant main effect of Gender [$F(1, 89) = 0.88, n.s.$] and no significant interaction between Role and Gender [$F(3, 89) = 1.01, n.s.$]. Tukey HSD post hoc tests revealed that Defenders received significantly more Like Most nominations than Bystanders ($p<0.05$). A significant main effect of peer nominated Role was found for Like Least [$F(3, 89) = 3.68, p<0.05$]. There was no significant main effect of Gender [$F(1, 89) = 0.21, n.s.$] and no significant interaction between Role and Gender [$F(3, 89) = 0.36, n.s.$]. Post hoc tests (Tukey HSD) revealed that Bullies received significantly more Like Least nominations than Bystanders ($p<0.01$), Defenders ($p<0.01$) and Victims ($p<0.01$).

Correlations were carried out between the continuous measures of peer nominations for the different roles (Bully, Victim and Defender) and Like Most and Like Least scores. This was done in order to examine the extent to which Like Most and Like Least scores varied with bullying, victimisation and defending. Like Most correlated significantly and positively with Defender nominations [$r = 0.45, p<0.01$] and with Victim nominations [$r = 0.43, p<0.01$]; Like Least correlated significantly and positively with Bully nominations [$r = 0.53, p<0.01$]. Correlations between nominations received for each type of Bullying and Like Most and Like Least scores revealed that Bullying by each method correlated significantly and positively with Like Least scores; bullying by

rumour spreading [$r = 0.49, p < 0.01$]; bullying by social exclusion [$r = 0.36, p < 0.01$]; physical bullying [$r = 0.48, p < 0.01$]; and verbal bullying [$r = 0.48, p < 0.01$].

Table 20 shows that Bullies tended to score highly on social rejection and low on social acceptance. This fits the Rejected profile of Coie et al (1982). In contrast, Victims tended to score around the mean on both scales, which fits the Average profile. Defenders were the most Popular children, scoring highly on social acceptance and low on social rejection. Bystanders were closer to the Neglected profile.

Table 20: Mean standardised Social Rejection and Social Acceptance scores by peer nominated bullying role (standard deviations in parenthesis).

Role	Standardised Like Most	Standardised Like Least
Bully	-0.17 (0.85)	0.74 (1.13)
Victim	0.10 (1.06)	-0.12 (0.75)
Defender	0.43 (0.78)	-0.40 (0.81)
Bystander	-0.37 (0.92)	-0.35 (0.82)

(b) Teacher nominations:

A one-way ANOVA was carried out to examine any differences in Like Most scores of children assigned to different roles in bullying by their teachers. There was a significant difference between the roles on Like Most scores [$F(3, 95) = 2.97, p < 0.05$]. Post hoc Tukey HSD tests revealed that Defenders received significantly higher standardised Like Most scores than Bystanders ($p < 0.05$).

A one-way ANOVA was carried out to examine any differences in the Like Least scores of children assigned to different roles in bullying by their teachers. There were significant differences between the roles in Like Least score [$F(3, 95) = 4.77, p < 0.01$]. Post hoc Tukey HSD tests revealed that Bullies received significant higher standardised Like Least scores than Defenders ($p < 0.01$). See Table 21 for mean standardised Like Most and Like Least scores by teacher nominated bullying role.

Table 21: Mean standardised Social Rejection and Social Acceptance scores by teacher nominated bullying role (standard deviations in parenthesis).

Role	Standardised Like Most	Standardised Like Least
Bully	-0.10 (1.08)	0.23 (0.89)
Defender	0.66 (0.98)	-0.69 (0.70)
Bystander	-0.19 (0.82)	-0.02 (0.95)
Bully/Victim	0.13 (1.09)	0.74 (1.15)

(c) Self nominations:

Unrelated samples t-tests were used to examine whether children who self nominated as Defenders and those who did not, differed in popularity. For Defender compared to non Defender, there was no significant difference in Like Least scores [$t(98) = -0.06$, n.s.]. Mean standardised Like Least scores for self nominated Defenders 0.02 (s.d. 0.96); non Defenders 0.01 (s.d. 1.10). There was a significant difference in Like Most scores [$t(98) = -2.05$, $p < 0.05$]; children who self nominated as Defenders received significantly more Like Most nominations. Mean standardised Like Most for Defenders 0.09 (s.d. 0.98) compared with -0.38 (s.d. 0.90) for those who did not self nominate as Defenders.

Unrelated samples t-tests were also used to examine whether self nominated Victims differed from non Victims in popularity. For Victim compared to non Victim, there were no significant differences in Like Most scores [$t(98) = -0.43$, n.s.]. Mean standardised Like Most score for Victims was 0.01 (s.d. 1.03) compared with 0.02 (s.d. 0.83) for non Victims. There was no significant difference between self nominated Victims and non Victims in Like Least scores [$t(98) = 0.11$, n.s.]. Self nominated Victims received a mean standardised Like Least score of 0.01 (s.d. 1.03) compared with 0.02 (s.d. 0.86) for non Victims.

7.3.5 Bullying role and reciprocal liking

(a) Peer nominations:

The mean number of reciprocal like most nominations received by each peer nominated role was; Bully 0.92 (s.d. 0.97); Victim 0.95 (s.d. 0.92); Defender 1.35 (s.d. 0.79);

Bystander 0.66 (s.d. 0.81). A one-way ANOVA revealed no significant differences between the roles in terms of reciprocal liking [$F(3, 87) = 2.26, n.s.$].

Using the continuous nominations received for Bully, Victim and Defender, three correlations were performed to examine the extent to which bullying, victimisation and defending were related to the number of reciprocal like most nominations. It was found that reciprocal liking correlated significantly and positively with Victim nominations [$r = 0.40, p < 0.01$] and Defender nominations [$r = 0.42, p < 0.01$], although Bully nominations did not correlate significantly with the number of reciprocated like most nominations [$r = 0.11, n.s.$].

(b) Teacher nominations:

The mean number of reciprocal like most nominations for each of the teacher nominated roles was: Bully 0.82 (s.d. 1.01); Defender 1.64 (s.d. 0.92); Bystander 0.84 (s.d. 0.79); Bully/Victim 1.18 (s.d. 1.17). A one way ANOVA was performed to examine any differences in the number of reciprocal like most nominations by teacher assigned role. There was a significant difference between the roles in terms of the number of reciprocated like most nominations they had [$F(3, 90) = 2.80, p < 0.05$]. Post hoc Tukey HSD tests revealed that Defenders were found to have significantly more reciprocated like most nominations than Bystanders ($p < 0.05$).

(c) Self nominations:

An unrelated samples t-test was performed to examine the number of like most nominations which were reciprocated of children who either self nominated as Defenders or did not self nominate as Defenders; there was a significant difference [$t(95) = -3.12, p < 0.01$]. Defenders (Mean 1.12, s.d. 0.94) had significantly more reciprocal friends than non Defenders (Mean 0.45, s.d. 0.69).

An unrelated samples t-test was performed to examine the number of reciprocated like most nominations of children who either self nominated as Victims or did not self nominate as Victims; there was no significant difference [$t(43.50) = 1.50, n.s.$]. Mean

number of reciprocal like most nominations; self nominated Victims 0.97 (s.d. 0.99), non Victims 0.96 (s.d. 0.69).

7.3.6 Friends and Roles: Do opposites attract?

Correlations between the number of peer nominations for Bully, Victim and Defender received by a child and his/her 3 nominated friends were performed in order to examine whether friends had similar bullying, victimisation and defending profiles.

A child's Bully nominations correlated significantly with those of each of their three nominated friends; $r = 0.47, 0.57, 0.54$ (each $p < 0.01$). In addition, friends' nominations for Bully correlated with each other. Bully nominations for Friend 1 correlated significantly with those of Friend 2 [$r = 0.69, p < 0.01$] and Friend 3 [$r = 0.42, p < 0.01$]; the Bully nominations received by Friends 2 and 3 also correlated significantly [$r = 0.55, p < 0.01$].

However, a child's Victim nominations did not show appreciable correlations with friends' Victim nominations; $r = 0.12$ (n.s.), 0.26 ($p < 0.05$), 0.07 (n.s.). Neither were there consistent correlations between the number of Victim nominations received by Friend 1 and Friend 2 [$r = 0.34, p < 0.01$] and Friend 3 [$r = 0.09$, n.s.]; the correlation between Friend 2 and Friend 3 nominations was also low [$r = 0.16$, n.s.].

Individuals' Defender nominations were correlated significantly with the Defender nominations received by each of their three friends, $r = 0.44$ ($p < 0.01$), 0.48 , ($p < 0.01$), 0.25 ($p < 0.05$). Friend 1 and 2 nominations for Defender correlated significantly, $r = 0.43$ ($p < 0.01$), although Friend 1 and Friend 3 nominations for defender did not correlate significantly, $r = 0.16$; Friend 2 and Friend 3 nominations for defender correlated significantly, $r = 0.40$ ($p < 0.01$).

This suggests that children with similar bullying profiles tend to be friends, as do children with similar prosocial behaviours. Although friends do not have similar victimisation profiles.

7.3.7 Amount of time spent alone, with peers or with an adult in relation to Like Most and Like Least nominations.

Correlations were performed between the observational variables and standardised Like Most and Like Least scores. It was found that Like Most correlated negatively with being alone ($r = -0.20, p < 0.05$) and positively with being with peers ($r = 0.22, p < 0.05$). None of the other correlations were significant.

Amount of time spent alone, with peers or with an adult in relation to sociometric status.

Three one-way ANOVAs were performed in order to examine whether there were any significant differences between the sociometric status groups in terms of the amount of time spent alone, with an adult or with peers (see Table 22). It was found that there were no significant differences between the sociometric status groups by time spent alone [$F(2, 59) = 0.05, n.s.$], time spent with an adult [$F(2, 59) = 0.45, n.s.$] or time spent with peers [$F(2, 59) = 0.20, n.s.$].

Table 22: Mean percentage of observations spent alone, with an adult or with peers by sociometric status group (standard deviations in parenthesis).

	Mean percentage of observations spent alone	Mean percentage of observations spent with an adult	Mean percentage of observations spent with peers
Popular	12.43 (10.35)	11.86 (9.42)	82.00 (11.52)
Rejected	12.17 (12.16)	16.25 (13.71)	78.83 (15.54)
Average	13.17 (10.91)	14.14 (12.00)	80.75 (12.05)

7.3.8 Amount of time spent alone, with peers or with an adult in relation to bullying role

a) Peer nominated role

Three one-way ANOVAs were performed to examine whether there were any effects of the peer nominated role taken in bullying on how the individual spent their time at morning and lunch breaks. There was a significant effect of bullying role on the percentage of time the individual spent alone [$F(3, 90) = 3.10, p < 0.05$]. Post hoc Tukey HSD tests revealed no significant differences between the peer nominated bullying roles

in the percentage of time spent alone. There were no significant differences between the peer nominated bullying roles in terms of the amount of time spent with an adult [$F(3, 90) = 0.12$, n.s.] or the amount of time spent with peers [$F(3, 90) = 1.63$, n.s.]; see Table 23.

Table 23: Mean amount of time spent alone, with peers or with an adult by peer nominated bullying role (standard deviations in parenthesis).

Role	Mean percentage of time spent alone	Mean percentage of time spent with peers	Mean percentage of time spent with an adult
Bully	12.48 (9.76)	80.80 (13.62)	14.52 (10.27)
Victim	10.13 (9.51)	82.17 (10.09)	13.39 (10.30)
Defender	9.65 (9.72)	84.00 (13.13)	14.65 (15.26)
Bystander	18.66 (15.66)	75.83 (15.90)	13.03 (10.71)

Correlations were also carried out between the continuous numbers of peer nominations received for Bully, Victim and Defender and the percentage of observation points spent alone, with peers or with an adult. This was done in order to examine whether the proportion of time spent alone, with peers or with an adult varied with the extent of bullying, victimisation or defending. There were significant negative correlations between time spent alone and nominations for victimisation [$r = -0.28$, $p < 0.01$] and between time spent alone and Defender nominations [$r = -0.31$, $p < 0.01$]. There were significant positive correlations between the proportion of time spent with peers and nominations for victimisation [$r = 0.22$, $p < 0.05$] and nominations for defending [$r = 0.21$, $p < 0.05$].

b)Teacher nominated role

Three one-way ANOVAs were performed in order to examine whether the teacher nominated bullying roles differed in the percentage of time they spent alone, with peers or with an adult in the playground. It was found that there was no significant difference between the teacher nominated bullying roles in the percentage of time they spent alone in the playground [$F(3, 92) = 0.61$, n.s.]; in the percentage of time they spent with an

adult [$F(3, 92) = 0.39$, n.s.]; or in the percentage of time spent with peers [$F(3, 92) = 0.78$, n.s.]. Post hoc tests revealed no significant differences between the groups in the way they spent their time; see Table 24.

Table 24: Mean amount of time spent alone, with peers or with an adult by teacher nominated bullying role (standard deviations in parenthesis).

Role	Mean percentage of time spent alone	Mean percentage of time spent with peers	Mean percentage of time spent with an adult
Bully	12.71 (8.56)	80.82 (12.38)	14.76 (12.39)
Defender	8.50 (8.17)	85.92 (11.62)	13.67 (10.60)
Bystander	13.79 (14.12)	80.43 (14.48)	11.84 (11.02)
Bully/Victim	13.18 (9.96)	77.82 (10.54)	14.36 (13.21)

c) Self nominated Bullying Roles

There were no significant differences between individuals who self nominated as Victims and those who did not self nominate as Victims in the percentage of time spent alone [$t(95) = 0.66$, n.s.], with peers [$t(95) = -0.03$, n.s.] or with an adult [$t(95) = -0.53$, n.s.]. Self nominated Defenders did not differ significantly from non Defenders in the percentage of observations spent with an adult [$t(95) = 1.35$, n.s.]. There were significant differences between individuals who self nominated as Defenders and those who did not self nominate as Defenders in the percentage of time spent alone [$t(95) = 2.73$, $p < 0.01$] and the percentage of time spent with peers [$t(95) = -2.89$, $p < 0.01$]. Individuals who self nominated as Defenders spent significantly less time alone than non Defenders. Mean number of observation intervals in which self nominated Defenders were alone was 11.43 (s.d. 10.37) compared with 19.23 (s.d. 15.84) for non Defenders. Self nominated Defenders also spent significantly more time with peers than those who did not self nominate as Defenders. The mean percentage of observations self nominated Defenders were observed with peers was 82.64 (s.d. 12.18) compared with 73.50 (s.d. 15.66) for non Defenders.

Table 25: A summary table of the main findings

		Sociometric status	Number of reciprocated Like Most nominations
BULLY	Peer	Rejected	Average
	Teacher	Rejected	Average
VICTIM	Peer	Average	Average
	Self	Average	Average
DEFENDER	Peer	Popular	Above Average
	Teacher	Popular	Above Average
	Self	Popular	Above Average
BYSTANDER	Peer	Neglected	Below Average
	Teacher	Average	Average
BULLY/VICTIM	Teacher	Controversial?	Above Average

Table 25 shows a summary of the main findings from this study. It shows remarkable concordance between reporters (peers, selves and teachers). Both peer and teacher nominated Bullies are rejected by the peer group as a whole, although they still have an average number of reciprocated like most nominations. From peer and self reports (teachers nominated too few children as Victims in order to reliably examine using statistical methods) Victims appear to be of Average sociometric status, neither highly liked nor disliked, with an average number of reciprocated like most nominations. Defenders were consistently found to be the most Popular children in the class based on peer reports, teacher reports and self reports. Defenders were also found to have the most reciprocated like most nominations. Bystanders assigned to the role on the basis of peer reports were found to be Neglected by their peers, showing below average levels of social acceptance and social rejection and below average number of reciprocated like most nominations. Bystanders assigned to the role on the basis of teacher reports were found to be Average in acceptance and rejection and had average numbers of reciprocated like most nominations. This may be an artefact of shared method variance (Hawker & Boulton in press). Children were assigned to the role of Bystander if they did not receive above average numbers of peer nominations for any other role. Those

children who did not receive nominations for a bullying role may not have received nominations of acceptance or rejection for the basic reason that their peers do not nominate them for anything. However, children who were not nominated for a bullying role by teachers (i.e. Bystanders) were of Average popularity. Teacher assigned Bully/Victims were average on social acceptance and high on social rejection, which is similar to the controversial profile suggested by Coie et al (1982). These children also had above average numbers of reciprocated like most nominations. This suggests that they are liked by some peers and disliked by others.

7.3.9 Predictors of role 3.5-4 months later

Regressions were performed to examine the extent to which bullying, victimisation and defending at time two (after a 3.5 – 4 month interval) could be predicted from the variables assessed at time one, which included social acceptance and rejection and the number of reciprocated like most nominations. (see Appendix Fourteen for a full list). Initial bully nominations explained 68% of the variance in later bullying nominations. However, social acceptance, social rejection and the number of reciprocated like most nominations did not significantly add to this. Initial victim nominations did not significantly account for any of the variance in later victim nominations. However, the number of reciprocated like most nominations a child had predicted victim nominations at time two, explaining 19% of its total variance. This suggests that having more reciprocated like most nominations was a predictor of later victimisation. Initial defender nominations explained 25% of the variance in later defender nominations. Social acceptance, social rejection and the number of reciprocated like most nominations did not add to this.

Additional regressions were performed which did not include initial nominations for bully, victim or defender. The other variables were entered simultaneously.

With regard to bullying after 3.5 – 4 months, the model significantly predicted 30% of the variance in later bullying nominations [$F=2.32$, $p<0.01$]. Like Least nominations significantly added to this model [$t=2.32$, $p<0.05$], the more like least nominations a child received, the more bullying nominations they received 3.5 – 4 months later.

The model did not significantly predict variance in later victim nominations [$F=1.25$, n.s.]. However, the number of reciprocal like most nominations significant added to the model [$t=2.61$, $p<0.05$]. This suggests that having reciprocated like most nominations is predictive of more victimisation nominations at time two.

Neither like most, like least nor reciprocated like most nominations significantly predicted later defending nominations.

7.4 **Discussion**

This study confirmed that children in each of the Bullying Roles, whether Peer nominated, Teacher nominated or Self nominated, did appear to differ in their peer relationships at school.

7.4.1 **Bullies**

Rejected children received significantly more bullying nominations than Popular or Average children. Bully nominations correlated significantly and positively with like least. Both Peer and Teacher nominated Bullies received above average Like Least nominations and below average Like Most nominations fitting the Rejected sociometric profile. Both Peer and Teacher nominated Bullies had few reciprocated like most nominations. Bullies' bullying nominations also correlated significantly with their friends' bullying nominations.

The finding that Bullies are socially rejected supports the predictions of Hypothesis Two and some of the previous research with older children which has found that Bullies are socially rejected (e.g. Lagerspetz et al 1982). Interestingly, children's nominations for bullying correlated significantly with the bullying nominations received by the three children they liked most. In addition, Bullies, although rejected by the peer group as a whole, did not spend significantly more time alone at break-times or lunchtimes than other children. This suggests that children with similar bullying profiles may form small friendship groups. It is therefore possible that young Bullies may be rejected by the peer group as a whole, but form smaller groups with other aggressive children. Boulton and Smith (1994) found in an older sample of male Bullies that Bullies are

more likely to be classified as controversial, which suggests that they may be liked and disliked by similar numbers of peers. They speculate that being popular with some peers could account for why Bullies continue with their aggressive behaviour. The fact that some classmates dislike the Bully may not matter to him if he has a group of friends in which he is popular. Cairns et al (1988) also found that aggressive children (not necessarily bullies) aged between 10 and 13 form 'social clusters', and although these children were not well liked by most of the other children, many expressed a high level of liking for each other. Poulin et al (1997) report similarity among friends, especially with respect to aggressive behaviour. When they examined this further they found that this applied only for proactive aggression (of which bullying is a form) and not for reactive aggression. This is consistent with the findings of Salmivalli et al (1997) which suggest that adolescent Bullies form friendships with other children with similar bullying profiles (i.e. other Bullies, Assistants and Reinforcers).

The direction of the relationship between bullying and social rejection is not clear from this study. Social rejection at time 1 did not significantly add to the prediction of bullying behaviour at time two beyond the 68% accounted for by initial levels of bullying nominations. This suggests that initial levels of peer nominations for bullying are most important in predicting later bullying behaviour.

It is possible that these aggressive children are rejected as a direct consequence of their aggressive behaviour. The finding that younger children are more disapproving of aggression than older children suggests that aggressive children are rejected as a result of their aggression. Huesmann and Guerra (1997) report that children's normative beliefs in support of aggressive behaviour increase with age. They report that children aged 6-7 years disapproved of aggression more than older children aged up to 10-11 years. The approval of aggression increases most from Grades one to two (between the ages of 6 and 8 years). They suggest that this may be related to the socialisation processes occurring during the earliest school years which may contribute to children becoming more accepting of aggression. In addition, Menesini et al (1997) reported that primary school children (8-11 years) had more negative attitudes towards bullying than their counterparts at middle/secondary school (11-14 years). Rigby (1997) examined

the attitudes towards bullying held by 9-18 year old Australians. He reported that with increasing age up to about 16 years, both boys and girls displayed attitudes and beliefs supportive of bullying, although beyond 16 years both attitudes and beliefs were moderated.

The findings that young children hold more negative attitudes towards bullying may also account for why they dislike aggressive children, but that this pattern may shift in middle childhood. In addition, Salmivalli et al (2000) report that indirect aggression, which is more characteristic of older children, is related to social acceptance. They suggest that, in order to effectively manipulate the social group the aggressor needs to have a good social standing. Whereas, direct forms of aggression, which are more characteristic of younger children (Chapter Three; Björkqvist et al 1992; Rivers & Smith 1994) were related to social rejection. Patterson et al (1989) have proposed a two stage model which suggests a shift in the popularity of aggressive individuals. They suggest that young aggressors are socially rejected by the peer group because of their behaviour, which leads to further aggression. However, later on they may become members of a delinquent social group in which they are popular.

Additionally, laboratory studies have also suggested that it is the child's behaviour which determines whether they are liked or disliked by peers (Dodge 1983; Coie & Kupersmidt 1983). However, these findings are limited by the laboratory setting and the exclusion of girls from the studies. It is also plausible that some rejected children respond aggressively to their peers in response to rejection. It is unlikely that you would be nice to those who reject you, although there is no evidence to support this. It is also possible that perhaps bullying and rejection influence each other in a reciprocal fashion. An individual might behave in an aggressive way, resulting in peer rejection, this could then compound the problem, resulting in the individual behaving more aggressively.

Bullying by any method significantly correlated with Like Least nominations. Rejected children received more nominations for bullying by social exclusion, bullying by rumour spreading, verbal bullying (only significant for Popular children) and physical

bullying (not significant). However, Crick et al in the USA have reported that different types of aggressive behaviour are differentially related to rejection (Crick et al 1997), with overtly aggressive children more rejected by the peer group than relationally aggressive children. This difference in findings could be an artefact of the methods used in the studies. In this study nominations for bullying style and social acceptance/social rejection were reliant on peer reports; whereas, Crick et al used peer reported measures of social rejection and teacher reports of bullying. The reliance in this study on peer reports may account for the strong relationship between bullying styles and rejection.

7.4.2 Victims

There was no significant difference between the sociometric status groups in the number of Victim nominations they received from peers. Peer nominations for Victim correlated significantly and positively with Like Most nominations. Peer nominated Victims received only slightly above the mean number of Like Most nominations and slightly below the mean number of Like Least nominations, fitting the Average sociometric status profile. Self nominated Victims did not differ in Like Most or Like Least scores from non Victims. Victims (either self nominated or peer nominated) did not spend significantly more time alone or less time with peers than other children at break-times and lunchtimes, suggesting that they were not socially isolated.

These victimised children were neither highly socially accepted nor rejected, tending to be Average in sociometric status. Victims also did not form social networks with other Victims. This finding contrasts with research with older children which consistently reports that Victims are rejected by the peer group (e.g. Salmivalli et al 1996a), although the results support the predictions of Hypothesis One. The difference in findings may be related to the nature of victimisation at this age and the attitudes towards bullying held by children at this age. Previous research (Kochenderfer & Ladd 1996) and the findings reported in Chapter Three have shown that victimisation does not appear to be a stable experience for most children at this age. It is not until middle childhood that Victim status is relatively stable (Boulton & Underwood 1992). This suggests that the relationship between victimisation and social rejection may not appear until middle

childhood when Victim status is a stable experience for these children. In addition, younger children have been found to be more disapproving of aggression and bullying than older children (Huesmann & Guerra 1997; Menesini et al 1997; Rigby 1997). This may further account for why Victims in this young sample were not rejected, and that there is a shift towards Victims being rejected in middle childhood.

The findings of this study do not indicate the direction of the relationship between social rejection and victimisation and this deserves further investigation. However, it does appear that social rejection at time one does not predict any of the variance in victimisation at time two and in fact having like most nominations which are reciprocated predicts later victimisation. This could be due to the more fluid nature of victimisation at this age. It is possible that socially rejected children are more vulnerable when faced with bullying and that by middle childhood Bullies limit their aggression to these rejected Victims. In addition it is possible that children who are victimised become rejected as a result of their victimisation and the effect that this has on their social reputation.

Some research has suggested that friends provide a protective function against victimisation. This would suggest that Rejected children may be singled out for victimisation. Some support for this has found that 'having a friend help' was associated with reduced victimisation over time (Kochenderfer & Ladd 1997). Boulton et al (1999) examined the friendship protection hypothesis longitudinally. Children with a reciprocated best friend in their class received fewer Victim nominations by their peers than those without a reciprocated best friend. Children who were friendless at both assessments points, 6 months apart, showed the highest increase in victimisation over this period, whereas those with a reciprocated best friend at both assessment points showed the greatest falls in victimisation. Kochenderfer and Ladd (1996) reported findings which suggest that children's victimisation experiences affect their school adjustment (self-reported loneliness and school liking) rather than school maladjustment fostering peer victimisation.

Hodges and Perry (1999) have suggested that peer rejection and peer victimisation have reciprocal influences on each other. They found that peer rejection contributed to gains in victimisation over time and that initial victimisation predicted increases in peer rejection one year later. They suggest that these reciprocal influences imply the existence of a vicious cycle of peer rejection and peer victimisation which supports the stability of victim status in older age groups. Hawker and Boulton (in press) employed a meta analytic review of cross-sectional studies which examine the relationship between victimisation and psychological maladjustment. They report strong effect sizes between victimisation and loneliness and depression. They relate these findings to the predictions of social rank theory (Gilbert 1992) which proposes that negative social experiences (e.g. victimisation) are implicated in the development of depression.

7.4.3 Defenders

Popular children received significantly more Defender nominations than Average children and more, although not significantly, than Rejected children. Peer and Teacher nominated Defenders received the highest mean number of Like Most nominations and the lowest mean number of Like Least nominations of the bullying groups, fitting the Popular sociometric profile. In addition, peer nominations for Defender correlated significantly and positively with Like Most scores. Children who self nominated as Defenders also received significantly more Like Most nominations than those who did not self nominate as Defenders. Peer and Teacher nominated Defenders had the highest number of reciprocated like most nominations and self nominated Defenders had significantly more reciprocated like most nominations than non-Defenders. Peer nominated Defenders were found to be friends with other peer nominated Defenders. Peer and teacher nominated Defenders spent the least amount of time alone of all of the groups and the most time with peers.

These findings suggest that Defenders are the most popular children in the class. This supports the predictions made by Hypothesis Three based upon previous research. Foster et al (1986) reported that in their sample of children aged between 7 and 14 sharing and providing help and support were associated with peer acceptance. Salmivalli et al (1996a) also report that Defenders in their teenage sample were the most

popular children in the class. Salmivalli et al (1997) also report similarity between friends in terms of defending as was found in this study.

Why should Defenders be so popular? It may be that Defenders derive their popularity from the act of defending others. Their peers may like them because of their pro-social behaviour. However, it may also be the case that in order to be able to defend others, one needs to be in a positive social position oneself, in order not to fear reprisals. It was found in this study that social acceptance and the number of reciprocal friends at time 1 did not predict any of the variance in defending behaviour at time two beyond that explained by initial levels of defending (25%). This suggests that it is initial defending behaviour which is more predictive of later defending.

7.4.4 Methodological issues

The predominantly cross-sectional nature of the research design was such that any causal links between bullying role and peer relationships could not be investigated fully. Future research is needed to examine the role of peer relationships in relation to the development and stability of bullying roles.

Although the type of the friends children had in terms of their bullying/ victimisation/ defending profile were examined, the quality of the friendships were not assessed. It would be interesting to examine how satisfied the children were with these friends and how much support they felt that they received from their friends. Having a friend whom you can rely on, confide in and feel warmth towards would be far more beneficial than having a friend who is distant and unreliable. Hodges et al (1997) suggested that the quality and not just the quantity of friends was an important moderator of the relationship between behavioural risk (internalising/externalising problems, and physical weakness) and victimisation. They found that when friends possessed qualities which left them unable to protect the child (i.e. the friends are physically weak or are victimised themselves), the relation of behavioural risk to victimisation was greater than when friends possessed qualities which would enable them to protect the child. The externalising behaviours of friends also had an effect. When a child's friends exhibited externalising problems, the child's own externalising behaviours were less predictive of

their victimisation. This led Hodges et al to suggest that friends who are prone to externalising behaviours may fight back on behalf of their friends and that this may serve a protective function.

It was also unfortunate that the sample size did not lend itself to the investigation of gender differences in the sociometric status of children in the different roles as it has been found in research with older children that female Bullies are less disliked than their male counterparts. Salmivalli et al (1996a) reported male Bullies being rejected by their classmates, whereas female Bullies scored high on both social acceptance and social rejection (which is more consistent with the controversial profile described by Coie et al 1982). These findings tie in with work carried out by Crick and colleagues (Crick et al 1997; Crick et al 1999). They report that girls are more likely to use relational aggression than boys and that boys are more likely to use overt aggression than girls. These types of aggression were found to be differentially related to sociometric status. Crick et al (1997) report that overtly aggressive children are more rejected by the peer group than those children who are relationally aggressive, although the finding was not replicated in this study. Therefore, the different bullying strategies employed by aggressive boys and girls may go some way to account for their social standing within the peer group.

One of the strengths of this study was that it examined sociometric status, social acceptance and rejection, reciprocity of liking and the roles taken by friends. In addition, rather than solely relying on peer nominations to examine peer relationships, observations were made of time spent alone, time spent with peers and time spent with an adult in order to further investigate children's peer relationships.

7.5 Summary

This study has shown that children who take the different roles in bullying differ in terms of their popularity and sociometric status and that there does appear to be developmental effect, especially for Victims. The findings with regard to Bullies and Defenders are consistent with the conclusions of research carried out with older children. Bullies were unpopular, socially rejected children, who formed small

networks with friends who had similar bullying profiles. Defenders were the most popular children in the class and also tended to form friendships with other Defenders. Victims in this sample were Average in popularity, neither highly liked nor disliked. This is in contrast with the findings regarding the sociometric status of Victims in middle childhood and adolescence which have consistently found that Victims are socially rejected individuals. The finding that young children are more disapproving of aggression and bullying suggests that they might be less rejecting of Victims than older children. In addition, the unstable nature of victimisation at this age is such that very few of the same children are being victimised over time, but rather many different children experience victimisation, if somewhat transiently. This would suggest that these children who are not stable Victims may not be clearly distinguishable from other children in terms of their sociometric status.

Chapter Eight: Family relationships of children taking different roles in bullying

Overview of Chapter Eight

This chapter investigates the family relationships of children taking different roles in bullying. Family factors have been implicated in aggressive and bullying behaviour as well as victimisation in older groups. Previous research has found that children who are either Bullies or Victims during middle childhood are more likely to be insecurely attached than their peers. This chapter will examine the family structures and attachment profiles of children taking different roles in bullying in a group of four to six year olds.

8.1 Introduction

8.1.1 Family factors in relation to bullying behaviour

Different parenting styles have been linked to aggression and victimisation. Children's aggressive behaviour has been found to be related to parenting which is characterised by a lack of warmth, negative emotional attitude and a lack of involvement (Hinshaw et al 1997; Olweus 1980). This parenting is permissive and tolerant but fails to set clear limitations on aggressive behaviour (Olweus 1994; Loeber & Hay 1994). It may also involve methods of discipline which are power-assertive, including harsh physical punishment and violent emotional outbursts (Cicchetti & Bukowski 1995).

Family relationships have been examined in relation to Bully and Victim status (see Smith & Myron-Wilson 1998 for a review). Bullies often experience harsh discipline in the home, are more likely to have parents who were Bullies (Farrington 1993), tend to view their families as distant, with distinct power relations between family members (Bowers et al 1994) and report less warmth within the family and a lack of positive communication between family members (Batsche & Knoff 1994). Bullies are also less likely to have a father figure in the home (Rigby, 1993; Bowers, Smith & Binney 1992; 1994). However, Myron-Wilson (1998) found no significant differences between the Participant Roles (Bully, Victim, Defender, Outsider, Reinforcer, Assistant) in the proportions living with both parents, single parent or a step-parent.

Overall, Victims' families tend to be enmeshed (Bowers et al 1994; Berdondini & Smith 1996). Finnegan et al (1998) found that maternal overprotectiveness was related to victimisation in preadolescent boys, whereas for girls, victimisation was related to maternal hostility. Ladd and Ladd (1998) video-taperecorded interactions between 5 year olds and their primary caregiver and used this to obtain measures of parenting behaviour and relationship quality. They found that peer victimisation was related to parenting styles characterised by high intrusive demandingness and low responsiveness for both boys and girls in kindergarten. Additionally, caregiver-child relationships characterised by intense closeness were also associated with peer victimisation for boys.

8.1.2 Attachment classification and bullying behaviour

Attachment relationships can be described in terms of the security of the relationship. Four categories of attachment have been identified; Secure (Type B), Insecure-Avoidant (Type A), Insecure-Ambivalent (Type C) and Insecure-Disorganised (Type D). Each of these attachment profiles are described in more detail in Chapter One. There is an appreciable amount of literature linking early insecure attachment with aggression and behaviour problems.

Several studies have found early insecure attachment has been related to poorer peer relationships, lower social competence and more aggressive relationships (Bost et al., 1998; Fagot & Kavanagh, 1990; Lyons-Ruth, 1996; LaFreniere & Sroufe 1985).

Looking at the relationship between bullying and victimisation and attachment directly, Troy and Sroufe (1987) placed 4 and 5 year old children in pairs and found that children who were Bullies and children who were victimised in play settings were more likely to be insecurely attached. They report that insecure-avoidant children were more likely to be Bullies and insecure-enmeshed children were more likely to be Victims. However these findings were limited by the contrived nature of the study.

Myron-Wilson (1998) also examined the attachment classifications of children aged 7 to 10 years who were identified by their classmates as Bullies and Victims. She found that Bullies and Victims were insecure, but Bullies and Victims tended to be classified

within different subgroups of insecure attachment. Angry enmeshed (E2) children were more likely to bully, whilst children with a passive enmeshed attachment profile (E1) were more likely to be Victims.

The disorganised attachment profile was first identified in clinical settings. This attachment profile has also been linked to behaviour problems, hostility, aggression and disruptive behaviour (Moss et al 1996; Solomon et al 1995; Shaw et al 1996). Moss et al (1996) have suggested that the child with the D attachment pattern focuses on controlling, nonreciprocal behaviour patterns by pre-school age which, they suggest are an attempt to bring some kind of stability to his/her world, leaving very little resources for learning and exploration.

8.1.3 Aims and Hypotheses:

Aim One: To investigate the family structures and attachment profiles of children in relation to the role they take in bullying.

Hypothesis One: Victims will not show insecure patterns of attachment because of the unstable nature of victimisation at this age.

Hypothesis Two: Bullies will more likely to be insecurely attached.

8.2 Method

8.2.1 Participants

See 3.3.1.1

8.2.2 Assessments

- Family Structure

This task involved the child picking out a series of cards to depict who lived with him or her. There were five different types of card. One octagonal card with a drawing of a male or female stick-figure mounted on card was to depict the child. The child was told “This is you” and shown the card. They were then shown the other four types of cards

all mounted on squares of coloured card; adult men – large male stick-figures mounted on blue card; adult women – large female stick-figures mounted on pink card; boys – small male stick figures mounted on blue card; girls – small female stick-figures mounted on pink card. There were six cards of each type. These were placed in four piles. Each type of card was explained to the child. For example “This is a boy” for the small male stick-figure mounted on blue card. The child was then asked “Can you show me who lives with you by picking the cards? So, if you have got a brother who lives with you, you should take one of these cards (the boy card) and put it next to you.” When the child had finished picking the cards they were asked “Is that everyone who lives with you?” If the child said “No” they were given the opportunity to add more cards and were again asked if that was everyone who lived with them. Once the child was satisfied that they had picked enough cards to depict their home situation they were asked “Who are these people? Can you tell me who that one is?” This was done for each of the cards the child had chosen and the responses were noted. If the child gave a name of an individual they were asked to specify their relationship to the individual, for example they would be asked “Who is (insert person’s name)?” (See Appendix Twelve).

- Attachment interview

The separation anxiety test was performed (Klagsbrun & Bolwby 1976). Children were shown drawings depicting six separation situations (Kaplan 1985) (See Appendix Thirteen), described in detail in 2.2.2.11.

The Resnick (1993) administration and coding system was used with these drawings. Although this was originally developed for use with 11 to 14 year olds it has been successfully used with younger children aged 7 to 10 years (Myron-Wilson 1998). Based on personal communication with Gary Resnick this approach was sanctioned for use with this sample with modifications (see 2.2.2.11 for details).

Children were told; “I’ve got some pictures here of a little boy/girl who’s name is (test child’s name inserted here) just like yours and I’d like you to help me tell some stories about him/her, all right?” Children were shown each separation situation in sequence (1

to 6). The situation was described to them e.g. for picture one; “Mummy is putting (name) to bed and then she’s going to go out the door.” They were then asked; “How do you think (name) might feel in the picture? Why do you think they might feel like that? What do you think they might do?”

The interviews were taperecorded and transcribed verbatim. They were then coded using the Resnick coding system on nine scales: Emotional openness; Dismissing/devaluing; Self blame; Resistance/withholding; Preoccupied anger; Displacement of feelings; Pessimism/optimism; Coherence of transcript; Solutions. Each scale was scored on a range of one to nine. The scales are described in detail in section 2.2.2.11.

The scores on these nine scales were used as a guide to classify the child’s attachment relationship as insecure avoidant (DS), insecure preoccupied (E) and secure (F). These were further classified into subtypes of these attachment types using the scores on the scales for guidance (see Table 1, section 2.2.2.11).

Good intercoder agreement was obtained on a subsample of the transcripts coded by the author and Gary Resnick (reported in 2.2.2.12 and Appendix Fifteen).

- Verbal ability

The short version of the British Picture Vocabulary Scale (Dunn et al 1982) was administered individually and scored according to the guidelines. The BPVS standardised score was used for analysis purposes in this chapter.

8.2.3 Procedure

See Section 3.3.1.3.

8.3 **Results**

8.3.1 Family Structure

Seven children did not take part in this part of the study as they were either absent from school N=4, or could not complete the task satisfactorily N=3; leaving N=97.

The mean number of other people resident in the home was 4.05 (s.d. 1.76) and ranged from one to ten. The mean number of adults resident in the home was 2.00 (s.d. 0.87), ranging from one to six. The mean number of other children resident in the home was 2.06 (s.d. 1.38) and ranged from none to seven. The percentage of children with father resident in the home was 75.3%; thus 24.7% did not have their father living with them. All of the children reported living with their mothers. None of the children who did not live with their fathers reported living with a step-father.

8.3.1.1 Gender differences

Three unrelated samples t-tests were performed in order to examine whether there were any structural differences in the home environments of boys and girls in this sample. It was found that there was no significant difference in the number of other people in the homes of boys and girls [$t(95) = 0.60$, n.s.]. There was also no significant difference in the numbers of other children in the homes of boys and girls [$t(95) = -0.65$, n.s.]. There was a significant difference in the numbers of adults present in the homes of boys and girls. Girls reported significantly more adults present in their homes than boys [$t(95) = 2.43$, $p < 0.05$]. (See Table 26.)

Table 26: Mean number of adults, other children and others living in the home by gender (standard deviation in parenthesis)

Gender	Number of adults in the home	Number of other children in the home	Number of others in the home
Boys	1.76 (0.66)	2.17 (1.62)	3.93 (1.87)
Girls	2.18 (0.96)	1.98 (1.18)	4.15 (1.68)

Chi square analysis examined whether there were differences in the proportions of boys and girls whose father was living with them. It was found that significantly more girls than boys lived with their father [$\chi^2(1) = 7.09$, $p < 0.01$]. 85.5% of girls lived with their father, compared with only 61.9% of boys.

8.3.1.2 Age differences; Reception vs. Year one

Three unrelated samples t-tests were performed in order to examine whether there were any structural differences in the home environments of the children in the two year groups in this sample. There was no significant difference in the numbers of adults present in the homes of children in Reception class and Year One [$t(95) = -1.67$, n.s.]. There was a significant difference in the numbers of other children in the homes of Reception class children and Year One children [$t(89.05) = -2.53$, $p < 0.05$]. Year One children reported significantly more other children resident in their home than Reception class children. There was also a significant difference in the number of other people in the homes of children in Year One and Reception [$t(89.37) = -2.66$, $p < 0.01$]. Year One children reported significantly more people resident in their homes than Reception class children. (See Table 27.)

Table 27: Mean number of adults, other children and others living in the home by school year group (standard deviation in parenthesis)

Class	Number of adults in the home	Number of other children in the home	Number of others in the home
Reception	1.83 (0.62)	1.69 (0.92)	3.52 (1.17)
Year One	2.13 (1.00)	2.35 (1.60)	4.46 (2.02)

Chi square analysis examined whether there were differences in the proportions of Reception class and Year One children whose father was resident in their home. It was found that there was no significant difference between the groups [$\chi^2(1) = 1.53$, n.s.]. 69.1% of Reception class children lived with their father, compared with 80.0% of Year One children.

8.3.3 Family structure and bullying roles

a) Peer nominations

Three one way ANOVAs were performed in order to examine whether the peer nominated bullying roles (Bully, Victim, Defender and Bystander) differed in family structure in terms of; number of others resident in home, number of other children resident in home and number of adults resident in home.

There was no significant difference between the peer nominated bullying roles in terms of the number of other people resident in their home [$F(3, 88) = 0.43$, n.s.], the number of other children resident in the home [$F(3, 88) = 0.24$, n.s.] or the number of adults resident in the home [$F(3, 88) = 1.64$, n.s.]. See Table 28.

Table 28: Mean number of adults, other children and others living in the home by peer nominated bullying role (standard deviation in parenthesis)

Role	Number of adults in the home	Number of other children in the home	Number of others in the home
Bully	1.84 (0.62)	2.24 (1.71)	4.08 (1.91)
Victim	1.91 (0.53)	1.91 (1.60)	3.77 (1.77)
Defender	2.41 (1.23)	2.00 (1.06)	4.41 (2.06)
Bystander	2.04 (1.00)	2.14 (1.18)	4.18 (1.54)

Chi square analysis revealed no significant differences in the proportions of children in each bullying role with a father resident in the home or not [$\chi^2(3) = 2.31$, n.s.]. The percentages of each role with a father present in the home were: Defender 88.2%; Bystander 75.0%; Victim 72.3%; Bully 68.0%.

Using the continuous nominations received from peers for each of the roles, correlations were performed to examine whether there was any relationship between the extent of bullying, victimisation and defending, and family structure [see Table 29]. Bully, Victim and Defender nominations did not correlate significantly with the number of adults in the home or the number of other children in the home. The number of nominations received for Defender and Bully did not correlate significantly with the number of other people resident in the home. However, there was a just significant negative correlation between the number of nominations received for victimisation and the number of other people resident in the home [$r = -0.20$, $p < 0.05$].

Table 29: Pearsons correlations between family structure and peer nominations for bullying, victimisation and defending.

Nominations	Number of adults	Number of other children	Total number of others in the home
Defender nominations	$r = 0.17$	$r = - 0.17$	$r = - 0.05$
Bully nominations	$r = - 0.14$	$r = 0.05$	$r = - 0.03$
Victim nominations	$r = - 0.09$	$r = - 0.19$	$r = -0.20^*$

* $p < 0.05$; ** $p < 0.01$

Using the continuous nominations received for Bully, Victim and Defender, three unrelated samples t-tests were performed to examine whether children who lived with their father and those who did not live with their father differed in the extent of bullying, victimisation and defending for which they were nominated by peers. There was no significant difference in the number of Bully nominations received by children whose father either lived with them or did not [$t(29.91) = 0.72$, n.s.]. Children whose father lived with them received a mean of 3.77 (s.d. 3.09) nominations for bullying, compared with children whose father did not live with them who received a mean of 4.50 (s.d. 4.67) nominations for bullying.

There was also no significant difference between children whose father resided with them and children who did not live with their father in the number of Victim nominations they received [$t(95) = 0.55$, n.s.]. Children whose father lived with them received an average of 3.64 (s.d. 2.09) nominations for Victim. Children whose father did not live with them received a mean of 3.92 (s.d. 2.10) nominations for Victim.

There was a significant difference in the number of peer nominations received for defending by children whose father lived with them compared with those whose father did not live with them [$t(95) = -2.35$, $p < 0.05$]. Children whose father lived with them received significantly more nominations for defending (Mean = 3.34, s.d. 1.96) than children whose fathers did not live with them (Mean = 2.33, s.d. 1.34).

b) Teacher nominations

Three one-way ANOVAs were performed to examine whether there were any significant differences between the teacher nominated bullying roles (Bully, Defender, Bystander and Bully/Victim) in terms of family structure; number of others resident in the home, number of adults resident in the home and number of other children resident in the home (see Table 30).

There were no significant differences between the teacher nominated bullying roles in the number of other people resident in the home [$F(3, 90) = 0.72$, n.s.], the number of adults in the home [$F(3, 90) = 0.20$, n.s.] or the number of other children resident in the home [$F(3, 90) = 0.96$, n.s.].

Table 30: Mean number of adults, other children and others living in the home by teacher nominated bullying role (standard deviation in parenthesis)

Role	Number of adults in the home	Number of other children in the home	Number of others in the home
Bully	2.00 (0.61)	2.53 (1.87)	4.53 (2.10)
Defender	2.17 (0.72)	1.83 (1.47)	4.00 (1.91)
Bystander	1.98 (1.01)	2.07 (1.29)	4.05 (1.75)
Bully/Victim	1.90 (0.57)	1.70 (0.82)	3.50 (1.18)

A Chi square analysis was performed in order to examine whether there was any significant difference in the proportions of children in each of the teacher nominated bullying roles who lived with their father or did not live with their father. Fishers exact was performed due to the small cell sizes. There was no significant difference between the roles in whether they had their father living with them [$\chi^2(3) = 3.04$, n.s.]. The percentages of children in each of the teacher nominated bullying roles who had their father living with them were: Defender 91.7%; Bully 82.4%; Bully/Victim 80.0%; Bystander 69.1%.

c) Self nominations

Three unrelated samples t-tests were performed to examine whether individuals who self nominated as Victims and those who did not self nominate as Victims differed on reports of family structure. There was no significant difference between self nominated Victims and those who did not self nominate as Victims in the number of other people resident in their home [$t(94) = -0.40$, n.s.], the number of adults resident in their home [$t(94) = -1.34$, n.s.] or the number of other children resident in their home [$t(94) = 0.28$, n.s.].

There were also no significant differences in the family structures of children who self nominated as Defenders and those who did not self nominate as Defenders. There was no significant difference in the number of people resident in their home [$t(94) = 0.97$, n.s.], the number of adults resident in their home [$t(94) = 0.83$, n.s.] or the number of other children resident in their home [$t(94) = 0.67$, n.s.].

A Chi square analysis revealed that self nominated Victims were more likely to have their father living with them than children who did not self nominate as Victims [$\chi^2(1) = 4.06$, $p < 0.05$]. 80.3% of self nominated Victims lived with their fathers compared with 60.0% of children who did not self nominate as Victims. A chi square analysis revealed no significant differences between self nominated Defenders and those who did not self nominate as Defenders in the proportions living with their fathers [$\chi^2(1) = 0.08$, n.s.]. 77.3% of children who did not self nominate as Defenders lived with their fathers compared with 74.3% of children who did not self nominate as Defenders.

8.3.2 Attachment

29 children did not have their interviews coded due to technical problems and absence, leaving N=75 to be analysed.

Table 31: Mean scores on the attachment scales

Scale	Minimum	Maximum	Mean	Standard deviation
Emotional Openness	1.00	7.00	4.67	1.90
Dismissing/Devaluing	1.50	7.00	4.08	1.01
Self Blame*	7.00	7.00	7.00	0.00
Resistance/Withholding	1.00	8.00	5.55	1.91
Preoccupied Anger	6.00	8.00	7.92	0.32
Displacement of Feelings	2.00	8.00	5.15	1.34
Pessimism/Optimism	4.00	7.00	5.62	0.77
Coherence of Transcript	1.00	7.00	4.61	2.00
Solutions	1.00	9.00	6.07	1.28

* Self Blame scores did not vary as none of the children attributed blame unfairly. Due to the uniform scores given for this scale it was not included in subsequent analyses.

8.3.2.1 Distribution of attachment classifications

49% Secure; 44% Dismissing devaluing; 7% Preoccupied.

Table 32: Distribution of attachment classifications

Attachment classification	Percentage of sample
DS1	24.0
DS2	5.3
DS3	14.7
F1	6.7
F2	21.3
F3	13.3
F4	8.0
F5	0.0
E1	6.7
E2	0.0

As a result of the verbal nature of the attachment interviews, Pearson's correlations were performed between BPVS score and score on each of the attachment scales. It was

found that there was a significant positive correlation between BPVS score and emotional openness [$r = 0.26, p < 0.05$] and coherence [$r = 0.28, p < 0.05$]. Therefore, score on the BPVS was controlled for in analyses involving these two variables.

8.3.2.2 Gender effects

Table 33 shows that unrelated samples t-tests revealed no significant differences between boys and girls on emotional openness, resistance/withholding, displacement of feelings or coherence. However, boys scored significantly higher than girls on dismissing/devaluing; showing more dismissing and devaluing of their attachments than girls. Girls scored significantly higher than boys on the pessimism/optimism scale; girls were significantly more optimistic than boys about the outcome of the separation. Girls also scored significantly higher than boys on the solutions scale; giving significantly more constructive solutions than boys.

Table 33: Mean scores by gender on the attachment scales (standard deviations in parenthesis) and result of unrelated t-tests examining gender differences on each scale.

Scale	Mean score: boys	Mean score: girls	Unrelated samples t-test (73df)
Emotional Openness ¹	4.29 (1.88)	5.00 (1.85)	$t = 1.64$
Dismissing/Devaluing	4.36 (0.95)	5.41 (1.42)	$t = -2.28^*$
Resistance/ Withholding	5.33 (1.79)	5.74 (2.00)	$t = 0.93$
Preoccupied anger	7.89 (0.32)	7.95 (0.32)	$t = 0.87$
Displacement of feelings	4.84 (1.18)	5.41 (1.42)	$t = 1.88$
Pessimism/optimism	5.34 (0.72)	5.86 (0.73)	$t = 3.10^{**}$
Coherence ¹	4.19 (1.80)	4.98 (2.11)	$t = 1.73$
Solutions	5.60 (1.38)	6.49 (1.05)	$t = 3.17^{**}$

* $p < 0.05$; ** $p < 0.01$

¹ There was still no significant difference between boys and girls when score on the BPVS was controlled for.

Chi square analysis revealed no significant difference between the proportions of boys and girls assigned a secure or insecure attachment classification on the basis of their attachment interviews [$\chi^2(1) = 2.20$, n.s.]. 60.0% of girls compared with 42.9% of boys were identified as being securely attached.

8.3.2.3 Age effects; Reception vs. Year 1

Unrelated samples t-tests revealed no significant differences between children in the two year groups on the eight attachment scales (see Table 35).

Table 34: Mean scores by year on the attachment scales (standard deviations in parenthesis) and result of unrelated t-tests examining year group differences on each scale.

Scale	Mean score: Reception	Mean score: Year One	Unrelated samples t-test (73df)
Emotional Openness ²	4.35 (1.99)	4.97 (1.79)	$t = -1.43$
Dismissing/Devaluing	4.26 (0.95)	3.91 (1.05)	$t = 1.50$
Resistance/ Withholding	5.22 (1.92)	5.87 (1.86)	$t = -1.50$
Preoccupied anger	7.95 (0.23)	7.89 (0.39)	$t = 0.69$
Displacement of feelings	4.96 (1.27)	5.33 (1.39)	$t = -1.20$
Pessimism/optimism	5.46 (0.80)	5.78 (0.70)	$t = -1.82$
Coherence ²	4.32 (2.00)	4.88 (1.98)	$t = -1.21$
Solutions	5.81 (1.45)	6.33 (1.05)	$t = -1.77$

* $p < 0.05$; ** $p < 0.01$

Chi square analysis revealed no significant differences in the proportions of Year 1 and Reception class children assigned insecure or secure attachments on the basis of their attachment interviews [$\chi^2(1) = 0.12$, n.s.]. 51.4% of children in the Reception class and 52.6% of children in Year One were identified as being securely attached.

² There were still no significant differences between the year groups when BPVS was controlled for.

8.3.2.4 Attachment and Family Structure

Unrelated samples t-tests revealed that there were no significant differences on the eight attachment scales between children who had their father resident in the home and those who did not live with their father.

Chi square analysis revealed that there was no significant difference in the proportions of secure and insecure children who had their father living with them or not living with them [$\chi^2(1) = 0.36$, n.s.]. 76.3% of securely attached children and 68.6% of insecurely attached children lived with their fathers.

8.3.2.5 Attachment profiles and bullying roles

a) Peer nominations

Table 35: Mean scores of children in different peer nominated bullying roles on each of the attachment scales (standard deviations in parenthesis)

Scale	Bully	Victim	Defender	Bystander
Emotional Openness	3.89 (2.06)	5.40 (1.59)	4.80 (1.93)	4.54 (1.89)
Dismissing/Devaluing	4.24 (1.01)	3.80 (0.86)	4.00 (1.13)	4.25 (1.00)
Resistance/ Withholding	4.92 (1.90)	6.17 (1.81)	5.50 (2.37)	5.60 (1.78)
Preoccupied anger	7.84 (0.37)	8.00 (0.00)	7.90 (0.32)	7.92 (0.39)
Displacement of feelings	5.03 (1.21)	5.33 (1.28)	5.70 (1.57)	4.90 (1.30)
Pessimism/optimism	5.16 (0.75)	5.90 (0.47)	5.60 (0.74)	5.69 (0.79)
Coherence	3.97 (1.95)	5.13 (1.92)	4.60 (2.46)	4.50 (1.94)
Solutions	4.95 (1.51)	6.80 (1.77)	6.40 (1.17)	6.25 (0.93)

Eight one way ANOVAs were performed in order to examine whether the peer nominated bullying roles (Bully, Victim, Defender and Bystander) differed significantly from each other on the attachment scales. There was no significant effect of role on emotional openness³ [$F(3, 66) = 1.83$, n.s.], dismissing/devaluing [$F(3, 66) = 0.80$, n.s.], resistance/withholding [$F(3, 66) = 1.21$, n.s.], preoccupied anger [$F(3, 66) = 0.66$], displacement of feelings [$F(3, 66) = 1.04$, n.s.], or coherence³ [$F(3, 66) = 0.93$, n.s.].

³ There was still no significant difference between the peer nominated bullying roles on these scales when BPVS was controlled for.

However, there was a significant effect of role on pessimism/optimism [$F(3, 66) = 3.44, p < 0.05$]. Post hoc tests using Tukey HSD revealed a significant difference between Bullies and Victims on pessimism/optimism ($p < 0.05$). Bullies scored significantly lower on the pessimism/optimism scales than Victims indicating that they were more pessimistic than Victims. There was also an effect of role on the solutions given to the separation [$F(3, 66) = 8.92, p < 0.01$]. It was found that Bullies received significantly lower scores on this scale than Victims ($p < 0.01$), Defenders ($p < 0.01$) and Bystanders ($p < 0.01$). This indicates that Bullies gave less constructive and more destructive scores than other children (see Table 35).

Chi square analysis was performed in order to examine whether there were any significant differences in the security of the attachment of children in each of the peer nominated roles. There was no significant difference between the roles in terms of security of attachment [$\chi^2(3) = 2.98, n.s.$]. 36.8% of Bullies, 50.0% of Bystanders, 60.0% of Defenders and 66.7% of Victims were securely attached.

To examine whether there was any relationship between the extent of bullying, victimisation and defending and scores on the attachment scales a series of Pearson's correlations were performed using the continuous peer nominations for Bully, Victim and Defender.

Defender nominations correlated significantly and positively with coherence scores [$r = 0.27, p < 0.05$] and with emotional openness [$r = 0.24, p < 0.05$]. However, when score on the BPVS was partialled out of these correlations, neither were significant [$r = 0.21, n.s.$] for coherence and [$r = 0.20, n.s.$] for emotional openness. The total number of peers nominating an individual as bullying correlated significantly and negatively with scores on the pessimism/optimism scale [$r = -0.24, p < 0.05$] and with the preoccupied anger scale [$r = -0.24, p < 0.05$]. This indicates that with increasing Bully nominations, children were becoming more pessimistic about the separation and were displaying more anger which was generalised beyond the separation situation. The number of peers nominating an individual as being victimised did not correlate significantly with scores on any of the attachment scales.

A series of unrelated samples t-tests were performed in order to examine whether securely and insecurely attached children differed from each other in the number of nominations for Bully, Victim and Defender they received from peers. It was found that there were no significant differences between secure and insecure children in the number of Bully nominations [$t(73) = -1.46$, n.s.], Victim nominations [$t(73) = -0.14$, n.s.] or Defender nominations [$t(73) = 1.04$, n.s.] received from peers.

The types of bullying/victimisation

Peer nominations for physical bullying correlated significantly and negatively with pessimism/optimism scores [$r = -0.30$, $p < 0.01$]. Peer nominations for verbal bullying also correlated significantly and negatively with pessimism/optimism scores [$r = -0.30$, $p < 0.01$]. Nominations for social exclusion correlated significantly and negatively with scores on the preoccupied anger scale [$r = -0.26$, $p < 0.05$]. Victimization by rumour spreading correlated significantly with preoccupied anger [$r = 0.24$, $p < 0.05$].

Unrelated samples t-tests were used to examine whether securely attached and insecurely attached children differed in the numbers of nominations they received for the types of bullying and victimisation. Insecurely attached children received significantly more peer nominations for physical bullying than securely attached children [$t(55.65) = -2.05$, $p < 0.05$]. The mean number of peer nominations for physical bullying received by insecurely attached children was 2.27 (s.d. 3.18) compared with 1.05 (s.d. 1.73) received by securely attached children. No other differences were significant.

b) Teacher nominations

A series of one way ANOVAs were performed in order to examine whether there were any significant differences in the scores on the attachment scales of children in the different teacher nominated bullying roles (Bully, Defender, Bystander, Bully/Victim) (see Table 36).

There was no significant effect of teacher nominated role on emotional openness⁴ [$F(3, 68) = 0.54$, n.s.], dismissing/devaluing [$F(3, 68) = 1.63$, n.s.], resistance/withholding [$F(3, 68) = 0.38$, n.s.], preoccupied anger [$F(3, 68) = 0.61$], displacement of feelings [$F(3, 68) = 0.54$, n.s.], pessimism/optimism [$F(3, 68) = 0.59$], coherence⁴ [$F(3, 68) = 0.62$, n.s.], or solutions [$F(3, 68) = 2.05$, n.s.]

Table 36: Mean scores of children in different teacher nominated bullying roles on each of the attachment scales (standard deviations in parenthesis)

Scale	Bully	Defender	Bystander	Bully/Victim
Emotional Openness	4.62 (2.15)	5.13 (1.36)	4.49 (1.92)	5.20 (1.81)
Dismissing/Devaluing	3.69 (1.11)	4.00 (0.76)	4.27 (0.96)	3.70 (1.16)
Resistance/ Withholding	5.46 (1.98)	5.44 (2.09)	5.38 (1.99)	6.10 (1.52)
Preoccupied anger	7.92 (0.28)	8.00 (0.00)	7.93 (0.35)	7.80 (0.42)
Displacement of feelings	5.35 (1.38)	5.19 (1.13)	4.98 (1.40)	5.50 (1.27)
Pessimism/optimism	5.38 (0.35)	5.69 (0.70)	5.63 (0.77)	5.80 (0.79)
Coherence	4.27 (2.37)	4.88 (2.03)	4.46 (2.01)	5.30 (1.57)
Solutions	5.62 (1.39)	6.75 (1.17)	6.16 (2.12)	5.50 (1.72)

Chi square was performed in order to examine whether there were any significant differences between the proportions of children in each of the teacher nominated bullying roles who were securely or insecurely attached. Fishers Exact was performed due to the small cell sizes and revealed no significant differences between the teacher nominated bullying roles in security of attachment [$\chi^2(3) = 1.76$, n.s.]. 43.9% of Bystanders were securely attached, 50.0% of Defenders were securely attached, 61.5% of Bullies were securely attached and 70.0% of Bully/Victims were securely attached.

c) Self nominations

Unrelated samples t-tests were performed in order to examine whether children who self nominated as Victims differed from non Victims and whether self nominated Defenders differed from non Defenders on the attachment scales. There were no significant

⁴ There was still no significant difference between teacher nominated roles when BPVS was controlled for.

differences between the self nominated Victims and children who did not self nominate as Victims on the attachment scales. However, there were several significant differences between self nominated Defenders and those who did not self nominate as Defenders.

Self nominated Defenders received significantly higher scores on emotional openness than non Defenders [$t(73) = -2.40, p < 0.05$]. The mean score of self nominated Defenders on emotional openness was 4.96 (s.d. 1.76) compared with 3.79 (s.d. 2.07) for non Defenders. This difference remained significant when BPVS score was controlled for [$F(1, 71) = 4.84, p < 0.05$]. This suggests that self nominated Defenders were more emotionally open than non Defenders.

Self nominated Defenders received significantly higher scores on the resistance/withholding scale than non Defenders [$t(73) = -1.97, p = 0.05$]. This indicates that self nominated Defenders showed less resistance/withholding during their interviews than non Defenders. Self nominated Defenders received a mean resistance/withholding score of 5.79 (s.d. 1.78) compared with 4.82 (s.d. 2.12) for non Defenders.

Self nominated Defenders received significantly higher scores on the coherence scale than non Defenders [$t(73) = -2.11, p < 0.05$]. This difference was still significant when the effects of BPVS were partialled out [$F(1, 71) = 4.24, p < 0.05$]. Defenders were more coherent during their attachment interviews than non Defenders. The mean coherence score received by self nominated Defenders was 4.88 (s.d. 1.90) compared with 3.80 (s.d. 2.07) for non Defenders.

Self nominated Defenders also received significantly higher scores on the solutions scale of the attachment interview than non Defenders [$t(73) = -3.54, p < 0.01$]. Self nominated Defenders gave more constructive solutions to the hypothetical separation than non Defenders. The mean solutions score for self nominated Defenders was 6.36 (s.d. 1.07) compared with 5.24 (s.d. 1.51) for non Defenders.

Chi square analyses were performed in order to examine whether self nominated Victims differed from non Victims and whether self nominated Defenders differed from non Defenders in terms of attachment security. There was no significant difference between the Victims and non Victims in attachment security [$\chi^2(1) = 2.46$, n.s.]. 56.9% of Victims were securely attached, compared with 35.3% of non Victims. There was a significant difference between Defenders and non Defenders in attachment security [$\chi^2(1) = 4.25$, $p < 0.05$]. 58.9% of Defenders were securely attached, compared with 31.6% of non Defenders.

Table 37: Summary of main findings

Role	Family Features	Overall attachment
Bully	Peer	$\frac{1}{3}$ from single parent homes
	Teacher	Most in dual parent homes
Victim	Peer	Most in dual parent homes
	Self	Most in dual parent homes
Defender	Peer	Father present - more nominations for defending
	Teacher	Most in dual parent homes
	Self	No difference between defenders and non defenders
Bystander	Peer	Most in dual parent homes
	Teacher	Most in dual parents homes
Bully/Victim	Teacher	Most in dual parent homes

8.3.2.6 Predictors of behaviour after a 3.5 – 4 month interval

Multiple stepwise regressions were performed in order to examine what predicted peer nominations for bullying, victimisation and defending after an interval of 3.5 to 4 months. A variety of variables examined in this thesis were entered stepwise into the regression (see Appendix Fourteen). It was found that initial nominations for bullying

predicted 68% of the variance in later bullying nominations. None of the family structure variables or scores on the attachment scales added to this prediction. Initial victim nominations did not significantly account for any of the variance in later victimisation, neither did any of the family structure factors or scores on the attachment scales. Initial levels of defending explained 25% of the variance in later defender nominations. Optimistic responses to the hypothetical separation on the SAT increased the prediction, and together these variables explained 34% of the total variance in later defending. See Appendix Fourteen.

Additional regressions were performed excluding initial levels of bullying, victimisation and defending, with each of the predictor variables entered simultaneously. It was found that scoring on the attachment profiles did not predict later defending or victimisation. The overall model significantly predicted 30% of the variance in later bullying nominations [$F=2.32$, $p<0.01$] and the score on the attachment scale for pessimism/optimism did significantly add to the model predicting later bullying [$t=2.70$, $p<0.01$]. This suggests that the more pessimistic a child is about the separation situations in the SAT (indicative of insecurity of attachment), the more bullying nominations they will receive from peers later [See Appendix Fourteen].

8.4 **Discussion**

The distribution of attachment classifications in this sample was; 49% Secure; 44% Dismissing devaluing; 7% Preoccupied. Myron-Wilson (1998) also reported high levels of insecurity in a sample of children aged 7-10 years from the same area of London.

The finding that there were no significant age differences in the scores received for each of the attachment scales or overall security are as predicted. Attachment theorists suggest that children build an 'internal working model' of relationships and that they apply this model to their current and future relationships. Therefore, it would not be expected that this would vary with age (except in the case of a serious life event) (Dunn 1993).

The main findings indicate that there are some differences in the family structure and attachment profiles of children taking the various roles in bullying.

8.4.1 Bullies

In terms of family structure there was not a great deal of difference between peer nominated or teacher nominated Bullies and other children, although a trend was found that children whose father did not live with them received on average more bullying nominations from their peers than children whose father did live with them. This tends to support the findings of Rigby (1993) and Bowers et al (1992; 1994).

There were some differences in the attachment profiles of Bullies compared with other children. It was found that peer nominated Bullies were less optimistic during the attachment interview than Victims. In addition they gave less constructive solutions to the separation situations than Victims, Defenders or Bystanders. Using the continuous measure of peer nominations, Bully nominations were found to be significantly associated with more generalised and less contained anger as well as more pessimism about the separation. Pessimism, destructive solutions and generalised anger are all related to insecurity. Approximately two thirds of Bullies were insecurely attached compared with half of Bystanders, 40% of Defenders and just under a third of Victims, although there were no overall significant differences between the groups. These findings are similar to those reported by Myron-Wilson (1998) and Troy and Sroufe (1987) suggesting that Bullies are more likely to be insecurely attached than other children.

There were no significant differences in the family structures and attachment profiles of bullies and other children based on teacher nominations and the scores on the attachment scales did not predict the variance in peer nominations for bullying behaviour after a 3.5 to 4 month interval beyond that accounted for by initial bullying nominations, i.e. any change in bullying. However, low scores on the pessimism/optimism scale (more pessimistic and indicative of insecurity) did predict more bullying nominations later on, when initial bullying nominations were not included in the regression.

8.4.2 Victims

Peer nominated Victims reported having more people overall living with them than other children. Self nominated Victims were also more likely to live with their father than non Victims. In terms of attachment profiles it was found that peer nominated Victims scored significantly higher on the pessimism/optimism scale, indicating that they were more optimistic about the separation than bullies. In addition, peer nominated Victims also gave more constructive as opposed to destructive solutions to the separation situation than bullies. Victims were not significantly more likely to be insecurely attached than any of the other peer nominated bullying roles as would be predicted from the findings of Myron-Wilson (1998) and Troy and Sroufe (1987). In fact, two thirds of Victims were securely attached, the largest percentage of secure attachments when the four bullying roles were examined. Troy and Sroufe (1987) reported that in their sample of 4 and 5 year olds, Victims were more likely to be insecure. This disparity between the findings may be a reflection of the different methodologies employed by the two studies. This study used peer and self nominations of victimisation (teachers did not nominate enough children as Victims to perform statistical analyses). Troy and Sroufe (1987) employed contrived play settings, which may have less ecological validity. Following on from the low stability of Victims at this age it was not really surprising that Victims could not be identified in terms of security of attachment (Kochenderfer & Ladd 1996; Chapter Three). It is possible that being insecurely attached may put children at risk of continued victimisation as insecurely attached individuals may have difficulties dealing with bullying successfully, whereas securely attached individuals may be able to cope adequately with bullying and therefore avoid further victimisation (Troy & Sroufe 1987). Therefore, this may account for why, by middle childhood, many of the individuals identified as Victims are insecurely attached. The multiple regression revealed that scores on the SAT did not account for any of the variance in later victimisation. This does not mean that insecurity is not a risk factor in victimisation during middle childhood. It may be, once again, a reflection of the very fluid nature of victimisation at this age.

The types of victimisation were also investigated in relation to the attachment profiles. Victimization by rumour spreading was found to be associated with scores on the preoccupied anger scale, indicating that children victimised in this way were less likely to exhibit generalised anger beyond the separation situation (scoring in the direction of security). There was no significant difference between self nominated Victims and non Victims in terms of attachment.

8.4.3 Defenders

When the family structure was investigated in relation to defending behaviour it was found that children who lived with their father received significantly more defending nominations from their peers than children who did not live with their father.

When the attachment profiles of the children were examined peer nominated defenders were found to use more constructive solutions to deal with the separation situation than bullies. In addition, 60% of peer nominated defenders were securely attached. There were no significant differences between teacher nominated defenders and other teacher nominated roles. However, self nominated defenders were more emotionally open, less resistant/withholding, more coherent and provided more constructive solutions to the separation than non defenders. The pattern is in the direction of security, and significantly more self nominated defenders than non defenders were securely attached. In addition, the multiple regression revealed that initial defender nominations explained 25% of the variance in later defender nominations. More optimistic responses to the hypothetical separation situation in the SAT (in the direction of security) increased the prediction, adding 9% to the predictive value of the model.

8.4.4 Limitations / Future directions

Unfortunately, due to the sample size this study did not lend itself to an investigation of the subtypes of attachment classifications in relation to the role taken in bullying. There were also some interesting trends which did not reach statistical significance. Future research could use a larger sample size in order to examine these differences more closely.

8.5 Summary

It was found that there were some differences between the roles taken in bullying and the attachment profiles and family structures. Children who did not live with their father received significantly more peer nominations for bullying than other children. Peer nominated bullies were more likely than any other group to be insecurely attached (although this did not reach significance) with approximately two thirds of Bullies identified as being insecurely attached. Bullying was also associated with scores indicative of insecurity; more generalised anger, pessimism and destructive solutions. Children who lived with their father received significantly more defending nominations than other children. Peer nominated victimisation was not related to insecurity, with less than one third of Victims identified as insecurely attached. This finding may be related to the low stability of victimisation at this age.

Chapter Nine: Overview of thesis and general discussion

Overview of Chapter Nine

This final chapter will review the findings of each of the empirical studies. These findings will then be discussed in relation to past and future research and potential implications for bullying interventions. It is now a legal requirement for schools to have a clear bullying policy. However, there are few interventions aimed specifically at dealing with bullying in very young groups. The implications this research has on potential anti-bullying interventions will be described.

9.1 Measurement

Chapter Three described the development of a method to find out about bullying from children (by self and peer reports) and their teachers. It revealed that children nominate their peers for taking the roles of Bully, Victim and Defender in bullying. The other Participant Roles; Assistant, Reinforcer and Outsider, which had been previously identified in older samples of 7-10 (Sutton & Smith 1999) and 12-15 (Salmivalli et al 1996a, 1998) were not reliably nominated at this age. This suggests that either these roles are not taken by children at this age or that children are unable to nominate peers for these more peripheral roles.

Table 38: A comparison of three studies - Age trends in the percentages of Bullies, Victims and Defenders

	Monks (2000) 4-6 year olds	Sutton & Smith (1999) 7-10 year olds	Salmivalli et al (1996a) 12-13 year olds
Bullies	25.0	14.0	8.2
Victims	22.1	18.1	11.3
Defenders	16.3	27.5	17.3

Table 38 above illustrates the percentages of children assigned to the roles of Bully, Victim and Defender on the basis of peer nominations between the ages of 4-6 (Study Two; Chapter Three), 7-10 (Sutton & Smith 1999) and 12/13 (Salmivalli et al 1996a). A pattern emerges, especially with regards to Bullies and Victims. The percentage of

children identified as Bullies decreases consistently with age. This could be due to over-reporting of bullying by younger children, possibly as a consequence of their more over-inclusive definition of bullying (Chapter Four). In addition, older Bullies are also more likely to use indirect methods of bullying (Björkqvist et al 1992) which may make it more difficult to identify Bullies as they get older and may also account for the decrease in the numbers of Bullies identified by peers.

We need to be cautious when talking about ‘bullying’ at this age. The assessment employed in this study (described in 3.3.1.2) used examples of behaviour which may be considered to be bullying. However, no mention of an imbalance of power or repetition was included. This may have an effect of giving a more ‘overinclusive’ group of ‘bullies’ including children who may be ‘peer aggressors’. This overinclusive group may reflect the understanding of bullying by children at this age. As reported in Chapter Four, young children have a broader definition of bullying than older children and adults and are more likely to include behaviours such as fighting or provoked aggression as bullying. In addition, it is suggested that these findings may reflect the origins of bullying in young children and that these children may go on to become those we consider as bullies during middle childhood and adolescence, although longitudinal research is needed to examine this further.

The percentage of children identified as Victims also decreases with age. This trend echoes that identified by Whitney and Smith (1993). They found that the percentage of Victims decrease with age. Smith, Madsen and Moody (1999) have suggested that the decrease in the number of Victims with age may also reflect the changing understanding of bullying. They also implicate an increase in skills with age that enable more children to deal with bullying effectively as they get older. A different pattern emerges when looking at the percentages of Defenders in the three samples. There appears to be a peak in defending during middle childhood which then decreases during adolescence. Once again, social skills may have a role in this trend. Fewer very young children may be in the position to be able to either understand the Victim’s plight or be skilled enough to do anything effective about it. During middle childhood, more children may have developed these skills and so, may defend others from victimisation. Research has

shown that older children are less disapproving of aggression and bullying than younger children (Huesmann & Guerra 1997; Menesini et al 1997; Rigby 1997). This may account for the decrease in numbers of children willing to stand up for the victims of bullying during adolescence.

The types of bullying identified as being used at this age were as predicted by theory (Björkqvist et al 1992). The children in this sample were more inclined to use direct methods of bullying, rather than indirect methods which are thought to be more sophisticated and characteristic of older children. However, the most common method of bullying was found to be social exclusion which, in this study, was treated as a form of direct bullying, taking place in a face-to-face encounter (the example used being; telling another child "You can't play with us"). Björkqvist et al (1992) treat social exclusion as an indirect form of bullying, giving the example of; "Suggests shunning of the other". This is indirect as it takes place via a third party, but is also a form of social exclusion.

The differences in the roles taken by boys and girls were also concordant with those found in older groups (Sutton & Smith 1999; Salmivalli et al 1996a); boys being more likely to be Bullies and girls more likely to be Defenders. There were also the predicted differences in the types of bullying used by boys and girls (Crick et al 1997); boys used physical methods of bullying and girls used relational methods of bullying.

When the stability of the roles were examined over a 3.5 to 4 month interval it was found that, although the other roles (Bully, Defender and Bystander) remained remarkably stable, victim status was not a stable experience for most children at this age. The stability of aggressive behaviour at this age is in accord with the findings of Ladd and Burgess (1999). The low stability of victim status was also reported in the U.S. by Kochenderfer and Ladd (1996). The unstable nature of victimisation at this age may reflect the developing nature of bullying. Perry et al (1990) have suggested that aggressive children might 'try out' a variety of targets when they begin school. They suggest that the aggressors then limit their aggression to fewer children based on their

targets' responses, which would result in many children being exposed to victimisation, although for most it is a somewhat transient experience.

This finding raises some interesting questions. If Victim status is relatively stable by middle childhood, what are the processes by which children become or escape becoming a stable Victim? Longitudinal studies may make these processes clearer.

In terms of implications for interventions it would be beneficial to raise awareness of bullying and victimisation at this age; the forms it takes, gender differences and stability. It may also be a good time to implement preventative measures and interventions before the roles become stable.

Conceptual issues; Bullying or general aggression?

It is important to discuss whether the concept identified in this study was bullying or general aggression. As mentioned in Chapter One bullying is usually distinguished from general aggression on two dimensions, the first is that bullying is thought to involve an imbalance of power and the second is that the behaviour is repeated (Farrington 1993). If we first focus on the issue of power, an imbalance of power was not examined explicitly in this assessment of bullying and has been neglected by many other researchers in this field. This study attempted to extrapolate back the research methodology conducted first by Salmivalli et al (1996a, 1998) with 12-15 year olds and later by Sutton and Smith (1999) with 7-10 year olds. Neither of these studies specifically addressed the imbalance of power identified by Farrington (1993).

The second issue concerns the repetition of the aggression. Farrington (1993) notes that this is a defining feature of bullying, although this has been disputed by others (e.g. Arora 1996). Arora (1996) stresses the long-term effect of the behaviour on the victim rather than the repeated nature of the attacks and argues that just one attack or threat can make the recipient feel afraid or upset for a considerable amount of time. In this study it was found that most of the targets of bullying experienced victimisation transiently. Few of them were exposed to peer aggression over long periods of time. However, the

bullying children remained fairly constant. As discussed earlier this has been suggested as being related to the developing nature of bullying at this age.

Future research should include some mention of the imbalance of power between the Bully and Victim. Some caution should be exercised in assuming that the children identified in this study will go on to become Bullies as we know them in later childhood and adolescence. It is suggested in this thesis that at this age these children may well be developing their bullying skills, although without longitudinal research it is not possible to say with any certainty whether they will become remain as Bullies as they get older. However, there is known to be high continuity of aggressive behaviour throughout childhood (Olweus 1993a). In addition, only slightly higher percentages of 'stable' Bullies were identified at this age than have been identified by self reports in slightly older groups (15% in this study compared with 12% of primary school children who bullied 'sometimes' or more often, Whitney & Smith 1993), or peer reports in older groups (14% of 7-10 year olds, Sutton & Smith 1999). Others have recognised the issue of bullying in infant classes (e.g. Alsaker & Perren 1999, in Switzerland) although this is still very understudied. A booklet on 'Bullying; The Early Years' has been published this year (Tattum & Tattum 2000).

9.2 **Definitions**

In Chapter Four the definitions of bullying held by young children and their teachers were examined. This chapter indicated that most very young children do have a concept of bullying. Although only around half of them were able to volunteer a definition of the term, when they were presented with illustrated situations they correctly identified physical, verbal, relational and indirect forms of bullying. However, there were differences between the definitions of bullying held by young children and their teachers. In comparison with teachers, the children were less likely to consider provocation in their definitions and were more likely to consider provoked aggression or a 'straight fight' as bullying than teachers. This finding is not surprising as both Madsen (1997) and Smith and Levan (1995) have reported that young children have a somewhat broader and more overinclusive definition of bullying than older children and adults.

In addition, it was found that the role taken in bullying by the individual had no influence on his/her definition of bullying, neither was gender found to have an effect on the definition of bullying. Other researchers have suggested that children are influenced by their experiences in terms of the definition of bullying they give (e.g. Hoover et al 1992). This would predict that children who took different roles in bullying and boys and girls would have different definitions of bullying. However, this was not found to be the case. In fact, verbal ability seemed to have a more pivotal role.

The difference between the teachers' and pupils' definitions of bullying concerning some of the more subtle forms of bullying could cause problems in the playground, with teachers somehow seen as 'condoning' behaviours which their pupils may consider bullying. In addition, it is important to ensure that children do not over report 'bullying'.

The implications for intervention schemes are highlighted by Guerin and Hennessy (1998) and Arora (1996). Guerin and Hennessy discuss the problems arising from their finding that children did not consider intention as a defining feature of bullying and they question how an intervention scheme could reach children who do not view themselves as bullies. Arora (1996) suggests that differences in definitions mean that interventions should not revolve around rigid definitions of bullying and goes as far as to suggest that searching for the one clear, universally acceptable definition of bullying is not a profitable way of spending time or money. Instead, Arora suggests it is more beneficial to examine observable behaviours that are occurring and are causing young people and children distress, whether or not they fit a predefined notion of bullying. When designing and implementing anti-bullying strategies, merely focussing on the term 'bullying' while discussing the problem with teachers and pupils is not necessarily going to lead to a shared meaning of the problem. Accordingly, Arora proposes that it is advisable to discuss specific examples of the behaviours.

Sutton (1998) notes that different definitions of bullying may actually be more applicable for certain uses. He considers that an all-inclusive definition may be more attractive when one is designing and implementing an intervention strategy and anti-

bullying policy, whereas on the other hand, a more restrictive definition would be more appealing for research in order to improve generalisability of the findings.

9.3 Physical Strength

Chapter Five examined the physical strength of children taking different roles in bullying. It was found that there was a relationship between being a Bully and being physically strong which is as predicted by Lagerspetz et al (1982). However, the relationship between strength and bullying appeared to be related to gender. Boys were found to be stronger than girls; more boys than girls were Bullies; and Bullies were stronger than other children. Four to six year old Victims were not weaker than other non bullying children, although adolescent Victims have been found to be weaker than other children (Lagerspetz et al 1982). Again, this may be related to the fluid nature of victimisation between the ages of 4-6. Physical weakness may later be a risk factor for becoming a stable Victim with Bullies singling out weaker targets for repeated victimisation. In addition it is possible that by gaining the social reputation of being a Victim, others will consider the individual as being weak (i.e. by 'haloing').

Future research may use more objective measures of physical strength in order to examine whether it is physical strength per se or perceptions of physical strength which may be influenced by the role the individual takes in bullying. It would also be pertinent to investigate whether the importance of physical strength decreases as children get older, as physical strength may be more advantageous for direct bullying in terms of creating an intimidating presence, than for indirect bullying which does not involve face to face encounters.

9.4 Cognitive Abilities

Chapter Six investigated the social cognitive and executive abilities of children in relation to the role they took in bullying. Unlike older ringleader Bullies who perform well on theory of mind tasks (Sutton et al 1999ab), children who bully at this age did not perform well on theory of mind tasks. This may be due to the slightly different nature of bullying at these two ages. Sutton et al found evidence to suggest that ringleader Bullies are part of a gang with Assistants helping them. This study found no

evidence of Reinforcers or Assistants in 4 to 6 year old groups (although as discussed earlier this may reflect an inability to nominate peers for these roles, rather than the non existence of these roles). If it is the case that bullying in younger groups is less gang-led, it may be more advantageous for older Bullies to have good theory of mind abilities in order to organise their gang. In addition, the young Bullies in this study tended to favour direct methods of bullying which are less linked to social intelligence than the indirect methods favoured by older Bullies (Björkqvist et al 2000; Kaukiainen et al 1996, 1999). These findings are worthy of further investigation. If these findings are replicated it could suggest that there is a developmental shift in the skills of Bullies. It could be that by bullying, Bullies become more socially adept as they are involved in a lot of social interactions. Or, it could be that the socially skilled Bullies manage to avoid detection and are the ones who continue to bully into middle childhood. Further longitudinal research may help to shed more light on these processes.

Victims' performance on these tasks was around average, which is in contrast to Sutton et al's (1999ab) Victims who were poorer on theory of mind tasks than other children. This finding may relate to the low stability of victimisation. It may be that many of the children who are targeted by Bullies between the ages of 4 and 6 have the necessary skills to avoid repeated victimisation. Whereas children with poorer social understanding, which may leave them at a disadvantage when dealing with bullying, may be more at risk of continued victimisation. It is also possible that by being a stable Victim, children may become socially isolated and be denied the social interactions which may facilitate theory of mind acquisition. Obviously this is only a hypothesis at this point. However, longitudinal studies would be important in identifying the factors which may place children at risk of becoming stably victimised.

Defenders were found to display the best performance on these tasks as would be predicted by Hala et al (1991), Watson et al (1999) and Björkqvist et al (2000). This superior social understanding may provide them with the insight into the Victims' plight, which may encourage their defending behaviour. It is also possible that their social skills enable them to defend more effectively than other children.

The implications of the findings of this chapter as they relate to interventions may rest with social skills training, such as assertiveness training. This is a method already used with Bullies and Victims (Nabuzoka, Whitney, Smith & Thompson 1993). However, as Sutton (1998) notes we need to take care that providing Bullies with social skills training does not help them become more effective Bullies. Björkqvist et al (2000) suggest that empathy training may help to decrease the aggression of Bullies.

9.5 Peer relationships

The peer relationships of children taking different roles in bullying were examined in Chapter Seven. It was found that, like Bullies in some older groups, Bullies at this age tended to be unpopular members of the peer group (e.g. Foster et al 1986; Lagerspetz et al 1982). Some researchers have suggested that although they may be rejected by the peer group, Bullies are popular with some peers (Boulton and Smith 1994). Patterson et al (1989) propose a 2 stage model of delinquency with relation to peer status. They suggest that family background provides a model for aggression and that the child's aggression can then lead to rejection by the peer group, leading to further aggression. Later, the individual affiliates him/herself with a delinquent group of peers within which they are a popular member. This may account for why these young Bullies were unpopular members of the peer group, but that during adolescence aggressive children may become popular members of an aggressive/delinquent group. In addition, the findings that young children are less approving of aggression than older children (Huesmann & Guerra 1997) and have been found to be more disapproving of bullying (Rigby 1997; Menesini et al 1997) may also account for the apparent shift in popularity of Bullies.

In contrast to the popular view of Victims being unpopular, in this study it was found that 4 – 6 year old Victims were of average popularity. This again may well be related to the higher levels of disapproval of aggression and bullying in younger groups, which might young lead children to be more sympathetic towards the Victims of bullying. It could also be related to the low stability of victimisation at this age. It would be interesting to find out the role that relationships play in the development of peer victimisation. It has been found in older groups where Victim status is relatively stable

that being unpopular is related to later victimisation and that being victimised damages an individual's social standing within the peer group (Hodges & Perry 1999). However, this has not been examined as the Bully and Victim roles are developing. In order to address this issue, longitudinal studies could be conducted to examine how sociometric status relates to bullying and victimisation over childhood and adolescence.

Defenders were found to be the most popular members of the class, which is in accord with research with 12-13 year old Defenders (Salmivalli et al 1996a). It is possible that these children gain their social reputation from their prosocial behaviour. It is also possible that their popularity within the peer group may enable them to defend others without fear of reprisals.

The implications for bullying interventions may lie in befriending schemes (see Cowie & Sharp 1996). Befriending can take many different forms, with a variety of demands on the helpers, ranging from acting as counsellors to encouraging others to join in activities. Befriending can involve peers/classmates or slightly older children. At this age, few demands should be placed on the helpers, other than acting as 'buddies' to isolated or neglected children who may be at risk of becoming victimised. Cowie and Sharp (1996) identify four main aims of befriending;

1. promote personal development of helpers.
2. use the peer helpers to provide caring support for peers.
3. have a positive influence on the emotional climate in the school.
4. provide a bridge between troubled friends in their peer group and professional counselling services.

Befriending schemes have been found to have a positive effect in older groups (Cowie 1999) and may be useful if implemented with younger children.

9.6 Family relationships

The family relations of children involved in bullying were the focus of Chapter Eight. The family structure of Bullies differed from other children; Bullies were less likely to have a father figure in the home (although not significantly). There was a trend in the data linking bullying to attachment scores related to insecurity. Victimization and

defending showed no link with insecurity. Focussing on Bullies, these findings were in the direction predicted by previous research with Bullies. Research has shown that Bullies are less likely to have a father figure in the home (Rigby, 1993; Bowers et al., 1994) and are more likely to be insecurely attached to their primary caregiver (Troy & Sroufe 1987; Myron-Wilson 1998).

Victimisation was not found to relate to insecurity, which is not consistent with previous findings (Myron-Wilson 1998; Troy & Sroufe 1987). The difference between the findings from this study and those of Myron-Wilson (1998) can be attributed to the differences in the stability of the Victim groups at these ages. Myron-Wilson examined the attachment profiles of Victims at a point when victimisation is generally stable, between the ages of 7 and 10. In contrast, the Victim group in this study was very changeable. It is possible that the security of an individual's attachment empowers them with the adequate skills to rebuff the Bully and deal effectively with the bullying, so that they do not become stably victimised. Insecurity may place children at risk of being bullied as when they are exposed to bullying they may not be able to deal with it effectively and this may result in prolonged victimisation. Contrary to this developmental hypothesis, Troy and Sroufe (1987) reported that Victims as young as 4 and 5 years (the same age as studied in this thesis) were insecurely attached. The apparent disparity between these findings may be related to the different methodologies employed by the two studies. This study relied on reports of victimisation and had moderate ecological validity. Troy and Sroufe used contrived play settings which may be lower in ecological validity. Further research needs to investigate the relationship between attachment and victimisation as Victim status becomes less fluid and more stable.

On the basis of these findings a potential intervention strategy which addresses the tendency toward insecurity of the Bullies might be proposed. Myron-Wilson (1998) suggests that interventions which include the parents (or other attachment figures) might prove beneficial. She proposes the use of various interventions from providing parents with booklets on how to help their child to in-depth family counselling aimed at altering attachment security. However, Van Ijzendoorn, Juffer and Duyvesteyn (1995) suggest

attachment based interventions only have limited and variable success. They conducted a meta analysis of twelve studies reporting the outcomes of attachment related intervention programmes, these were either aimed at altering the maternal representation of relationships (at the representational level) or encouraging sensitive responding to the infant (at the behavioural level). They report that the interventions were moderately successful at enhancing maternal sensitivity. However, they were less effective at enhancing the quality of the infant-mother attachment and three reported iatrogenic results. In addition, the children in these studies were aged under 2 years. Therefore, although it may not be plausible to directly attempt to alter the attachment security of these bullying children, it may be more useful to work to help them to reassess their social behaviour and internal representations of relationships (Myron-Wilson 1998).

9.7 Conclusions

9.7.1 Victims

Between the ages of 4 and 6 years, Victim status is not a stable role for most children. Although by middle childhood the evidence suggests that victimisation is a stable experience for many children (Boulton & Underwood 1992). Perry et al (1990) have attempted to account for the low stability of victimisation in some groups. They have suggested that when aggressive children enter a new peer group (in this case starting school), they 'try out' a large number of targets, and learning from their targets' responses, they limit their aggression to fewer children (a 'stable' victim group). This could account for the large number of children transiently experiencing victimisation, although for very few is it a longer-term occurrence.

When examining the individual characteristics and relationships of children identified as Victims in this study on the basis of peer and self nominations (teachers did not nominate enough children as being victimised to examine) there appear to be marked differences between young Victims and older Victims. It is suggested in this thesis that the apparent disparity between younger and older Victims may be related to the changing stability of the role.

Table 39: A comparison of the characteristics of Victims between the ages of 4 and 6 years and during middle childhood.

Characteristic	Victims – 4 to 6 years old	Victims – middle childhood
Physical strength	Average	Weak ¹
Theory of mind	Average	Poor ²
Sociometric status	Average	Rejected ³
Attachment	Secure	Insecure ⁴

¹ Lagerspetz et al (1982); ² Sutton et al (1999b); ³ e.g. Salmivalli et al (1996a); ⁴ Myron-Wilson (1998)

It is possible that these factors that have been identified in older groups of victims; physical weakness, poor social understanding, social rejection and insecure attachments may be risk factors or consequences of stable victimisation. Many of the young children victimised during the first 2 years at school manage to avoid further victimisation. This may be due to a combination of factors including; not being weak, having the skills to avoid further victimisation, having friends and being securely attached. For other children it may be difficult to escape victimisation and perhaps the four factors mentioned may be risk factors in being picked out by the Bully for repeated victimisation. It is also possible that some of these factors could be the outcomes of victimisation, certainly teachers' perceptions of the physical strength of Victims could be influenced by the fact that the child is being victimised. The poor social understanding of older Victims could also be a consequence of their victimisation by limiting their social experience as mentioned earlier. Research into the relationship between social rejection and victimisation (Hodges & Perry 1999) has been shown to be cyclical; rejection putting children at risk of victimisation, victimisation further compounding social rejection. Indicating that social rejection may be a risk factor and a consequence of stable victimisation.

9.7.2 Bullies

During the first 2 years at school there is a relatively stable identifiable group of aggressive children, as predicted by work in the U.S. by Ladd and Burgess (1999). These children use direct methods of bullying others and are more likely to be boys than girls. This group of aggressive children have also be found to differ somewhat in terms

of personal and relationship characteristics which may relate to the nature of bullying between the ages of 4 and 6.

Table 40: A comparison of the characteristics of Bullies between the ages of 4 and 6 years and during middle childhood.

Characteristic	Bullies – 4 to 6 years old	Bullies – middle childhood
Physical strength	Strong	Strong ¹
Theory of mind	Poor	Above average ²
Sociometric status	Rejected	Controversial? ³
Attachment	Trend towards Insecure	Insecure ⁴

¹ Lagerspetz et al (1982); ² Sutton et al (1999b); ³ Boulton & Smith (1994); ⁴ Myron-Wilson (1998)

There are some similarities between older Bullies and the children identified as Bullies in this sample of 4 – 6 year olds. These were in terms trends in family background and physical strength. However, the relative theory of mind skills of Bullies during early and middle childhood were not equivalent. This might be indicative of a developmental shift in Bullies' abilities. It is possible that those Bullies who go undetected into middle childhood, may be those with good theory of mind abilities, skills which have enabled them to continue bullying without being detected. Another theory could suggest that bullying, by its nature a social process, could provide Bullies with the opportunities to improve their theory of mind abilities (perhaps along the lines of interactions with sibs and parents have been found to assist theory of mind acquisition).

In terms of the relationship between aggressive behaviour and social rejection, Patterson et al (1988) have suggested that family factors play a role in the development of aggressive behaviour. This aggressive behaviour leads to peer rejection, leading to further aggression. However, Patterson et al suggest that later on in development, the aggressive individual may affiliate him/herself with a delinquent peer group. This may account for why young Bullies are socially rejected, but why older Bullies may be liked by some of their peers.

9.7.3 Defenders

Defenders were also a relatively stable group and were more likely to be girls than boys (as also found in adolescent groups, Salmivalli et al 1996a).

Table 41: A comparison of the characteristics of Defenders between the ages of 4 and 6 years and during middle childhood.

Characteristic	Defenders – 4 to 6 years old	Defenders – middle childhood
Physical strength	Average	Unknown
Theory of mind	Above average	Above average ¹
Sociometric status	Popular	Popular ²
Attachment	Secure	Unknown

¹ Sutton (1998); ² Salmivalli et al (1996a)

Defenders were of average strength, with good cognitive abilities, were popular members of the class and not likely to be insecurely attached. They were also more likely to live with both parents. Little research has been carried out examining these prosocial children. However, the finding that they were of average strength suggests that it is not necessary to be big and strong to be able to stand up to the Bullies on others' behalf. Their superior theory of mind abilities are also evident in older groups where they have been found to be of above average ability (Sutton 1998). These skills may enable the Defender to see the Victim's point of view more easily which may encourage them to step in. Superior theory of mind abilities may also enable an individual to be more effective if they do try to defend another child. The popularity of Defenders is also as predicted. Research with older children has shown Defenders to be the most popular members of the class (Salmivalli et al 1996a). This popularity may be a result of their prosocial behaviour. It is also possible that their social standing may enable them to defend others without fear of reprisals. Longitudinal research is needed to examine this further.

9.8 Final Summary

This research has attempted to examine the nature of bullying in a group of children during the first two years of schooling. This is the point when most children first come

into regular daily contact with their peer group and it is suggested in this thesis that this may be the point at which bullying roles start to develop. Bullying at this age has been found to differ from bullying in older samples in some ways. It is more direct in nature and less likely to involve indirect bullying (via a third party). It has also been shown that Bully, Bystander and Defender roles are relatively stable at this age. However, Victim status is low in stability, which has been suggested as being related to the development of the roles taken in bullying. This research has investigated some of the correlates of bullying, physical and cognitive characteristics as well as peer and family relationships, which have been identified as distinguishing between Bullies and Victims in older groups. The findings of this study have been discussed in relation to the implications for providing information and developing anti-bullying interventions aimed at the 4 to 6 year age group.

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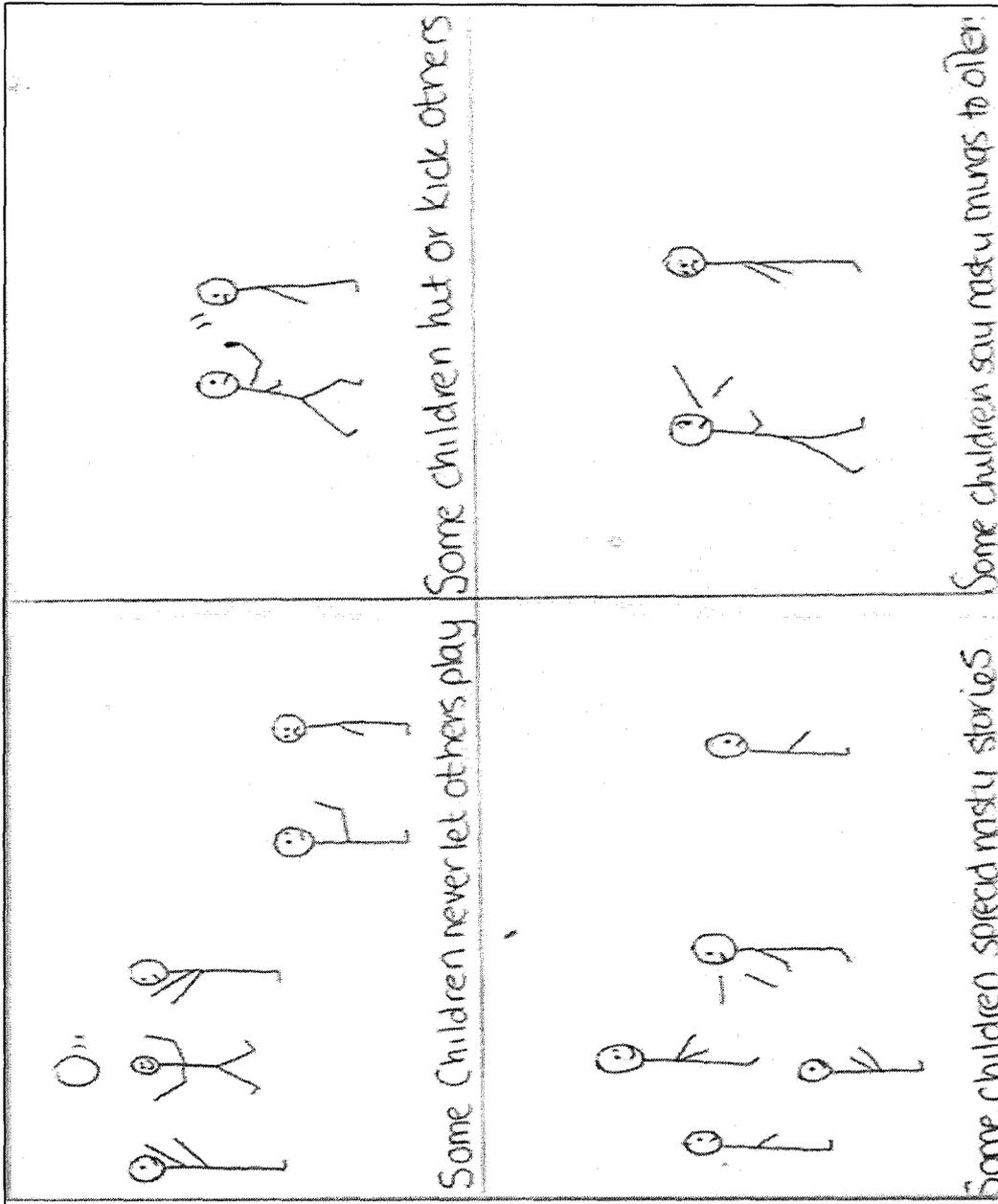
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APPENDICES

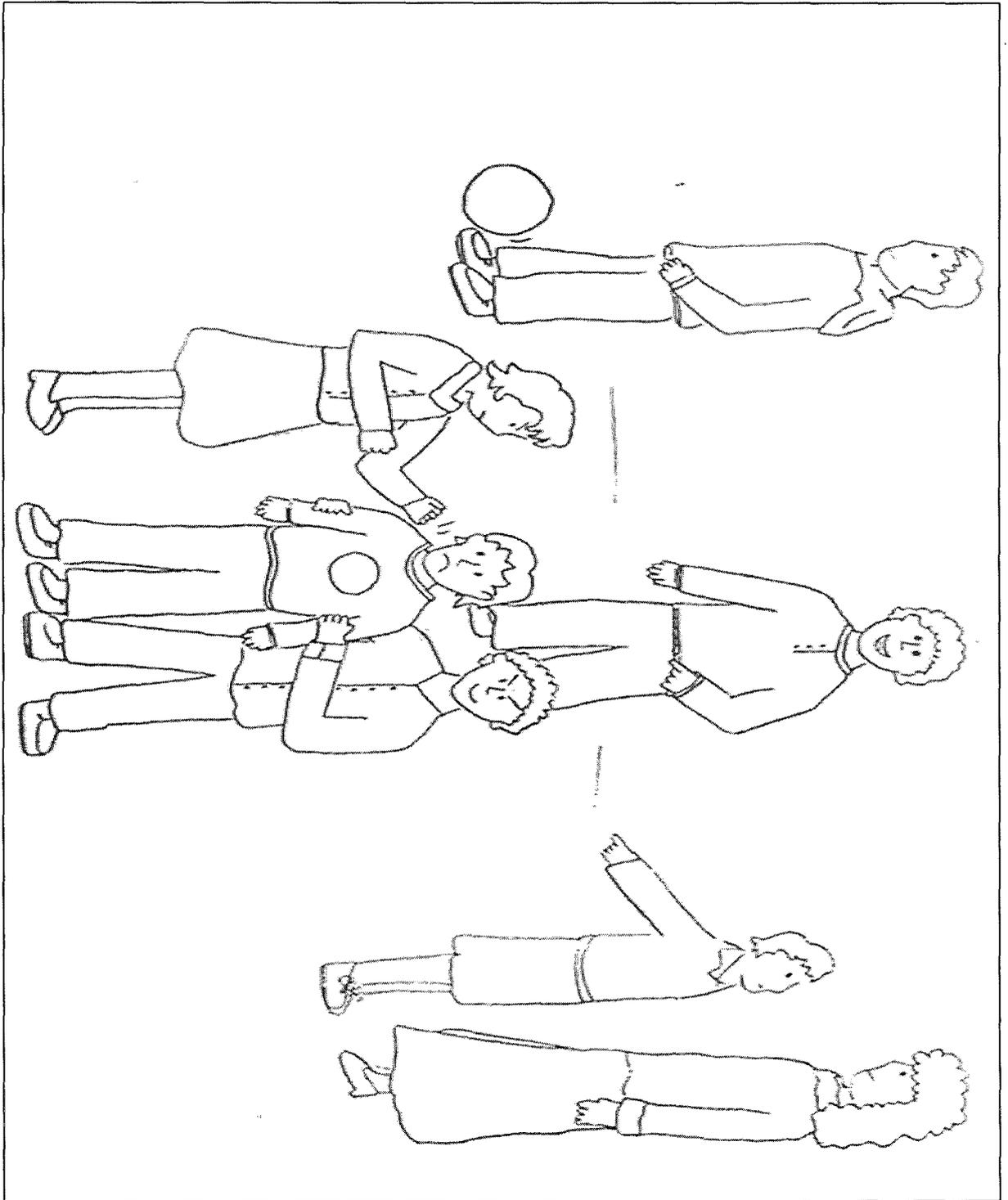
Appendix One

Participant Roles Interview; Cartoon One



Appendix Two

Participant Roles Interview; Cartoon Two



Appendix Three

Teacher nominations for bullying roles

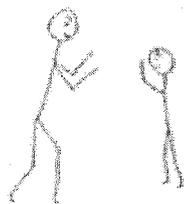
<p style="text-align: center;"><u>Who do you view within your class as behaving in these ways (if anyone)?</u></p> <p>Children can be nominated for NONE, ONE OR MORE of these behaviours. Please add more sheets if necessary.</p> <p>Hit/Kick/Push other children:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Spread nasty rumours about other children:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Call others nasty names/shout at them/or verbally abuse them:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Exclude others from their games/or group</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Are hit/kicked/pushed by other children:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Have nasty rumours spread about them by other children:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Are called nasty names/shouted at/or verbally abused by other children:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Are excluded from games/or a social group:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Stick up for the individual being victimised either by telling an adult/comforting the victim/actively attempting to get the behaviour to stop:</p> <p>_____</p> <p>_____</p> <p>_____</p>

Appendix Four

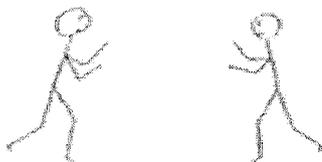
Definitions of bullying; girl version



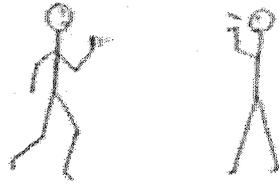
Tiffany starts a fight with Wendy.



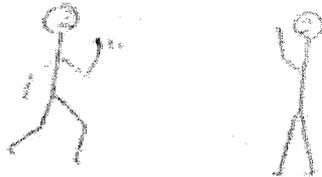
Mary starts a fight with Linda, who is smaller.



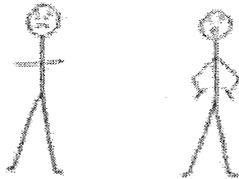
Helen and Jo don't like each other and start to fight.



Samantha starts a fight with Jennifer because she said Samantha was stupid



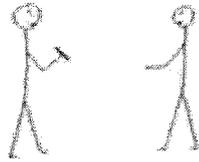
Hilary starts a fight with Rosalind every break time.



Lara borrows Helena's ruler and accidentally breaks it.



Sharon takes Carol's ruler and breaks it.



May forgot her pen so June lends her one of hers.



Danielle says nasty things to Janet.



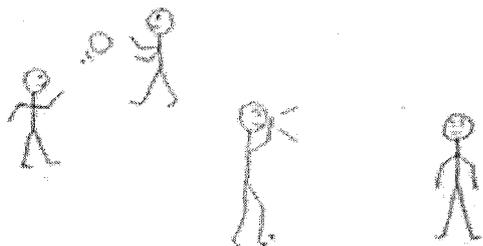
Ann says nasty things to Debbie every week.



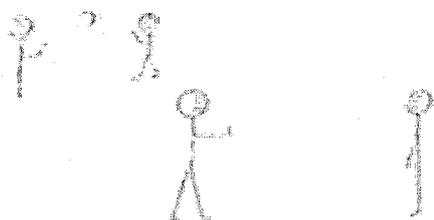
Rosie makes fun of Mandy's hair. They both laugh.



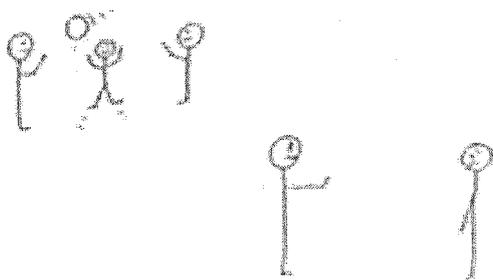
Elaine makes fun of Sue's hair. Sue is upset.



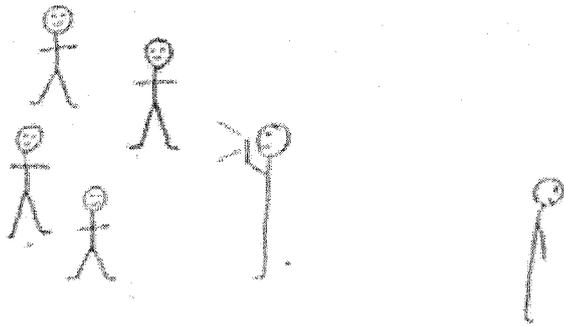
Emma asks Heidi if she would like to play.



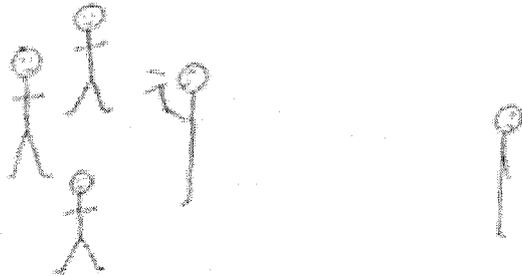
Chloe won't let Denise play today.



Natalie never lets Jean play.



Keely tells everyone not to talk to Anna.



Fran spreads nasty stories about Melanie.

Appendix Five

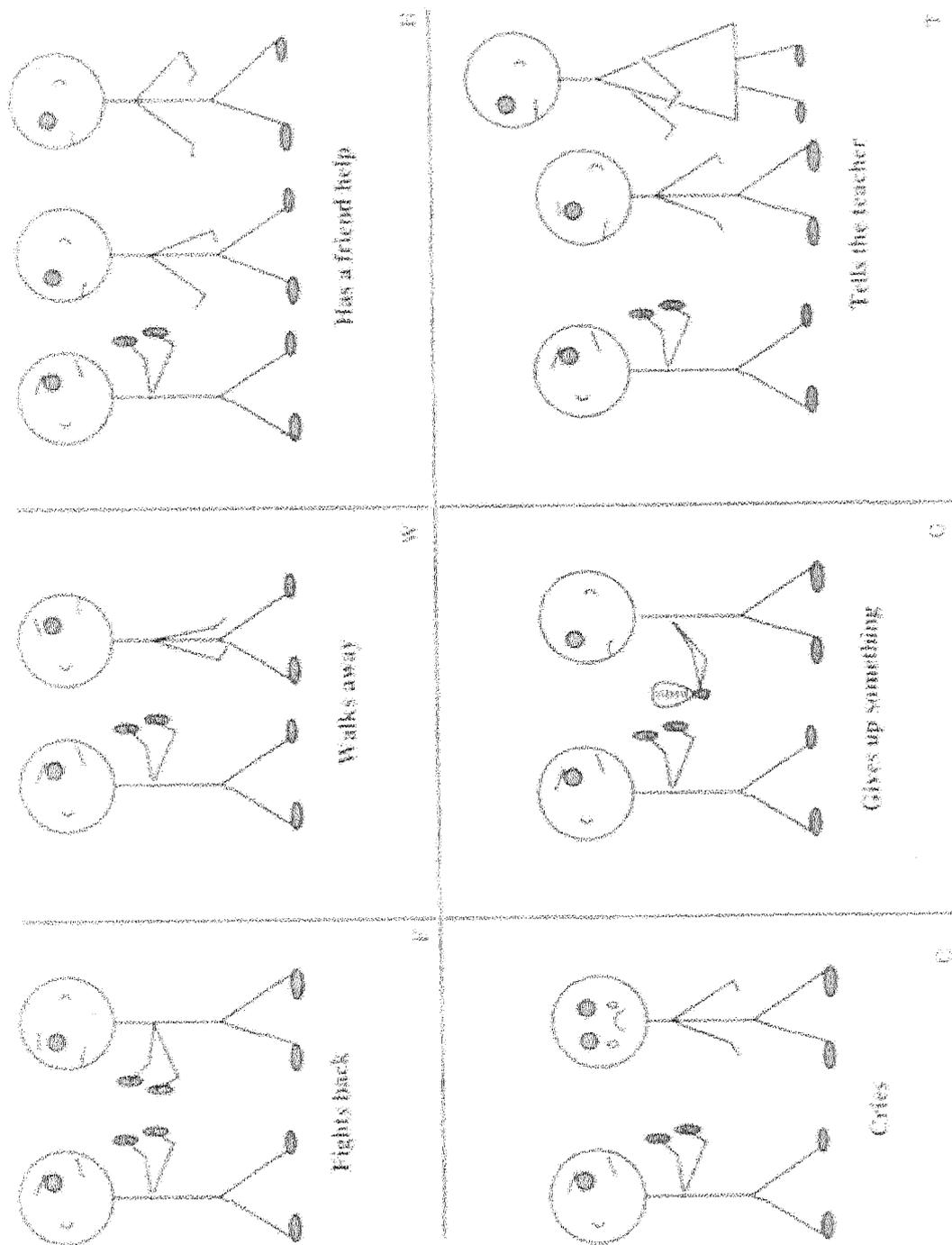
Questionnaire for teacher definition of bullying.

<u>About Bullying</u>	
Teacher Name: _____	Class: _____
Date: _____	
<u>What do you think bullying is?(add more paper if necessary)</u>	

<u>Please read the sentences below and decide whether the situations described are; Bullying (B), Not Bullying (NB) or you are Not Sure (NS).</u>	
X & Y don't like each other and start to fight. <input type="checkbox"/>	
X starts a fight with Y. <input type="checkbox"/>	
X starts a fight with Y who is smaller. <input type="checkbox"/>	
X starts a fight with Y because Y said that X was stupid. <input type="checkbox"/>	
X starts a fight with Y every break time. <input type="checkbox"/>	
X borrows Y's ruler and accidentally breaks it. <input type="checkbox"/>	
X takes Y's ruler and breaks it. <input type="checkbox"/>	
X forgot their pen and so Y lends them one of theirs. <input type="checkbox"/>	
X says nasty things to Y. <input type="checkbox"/>	
X says nasty things to Y every week. <input type="checkbox"/>	
X makes fun of Y's hair. They both laugh. <input type="checkbox"/>	
X makes fun of Y's hair. Y is upset. <input type="checkbox"/>	
X asks Y if he/she would like to play. <input type="checkbox"/>	
X won't let Y play today. <input type="checkbox"/>	
X never lets Y play. <input type="checkbox"/>	
X tells everyone not to talk to Y. <input type="checkbox"/>	
X tells nasty stories about Y. <input type="checkbox"/>	

Appendix Six

Response to Victimization (Kochenderfer & Ladd 1996)



Appendix Eight

Materials used for Sally and Anne first order and second order false belief tasks.



Appendix Nine

Materials used for the Deception tasks.

One box task

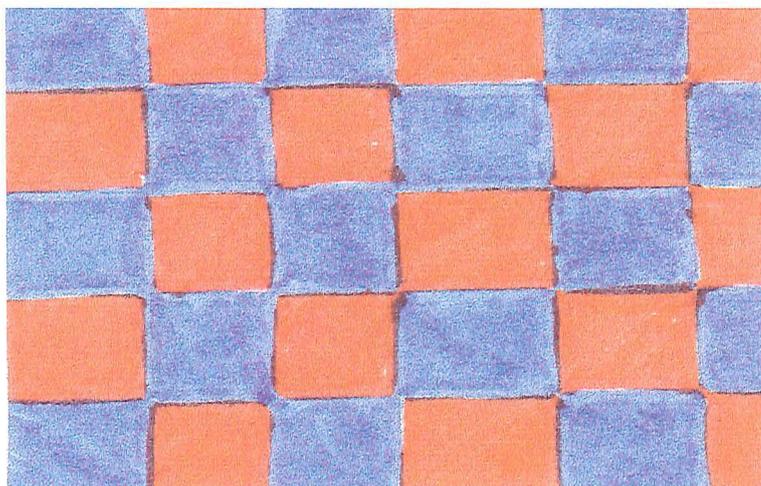
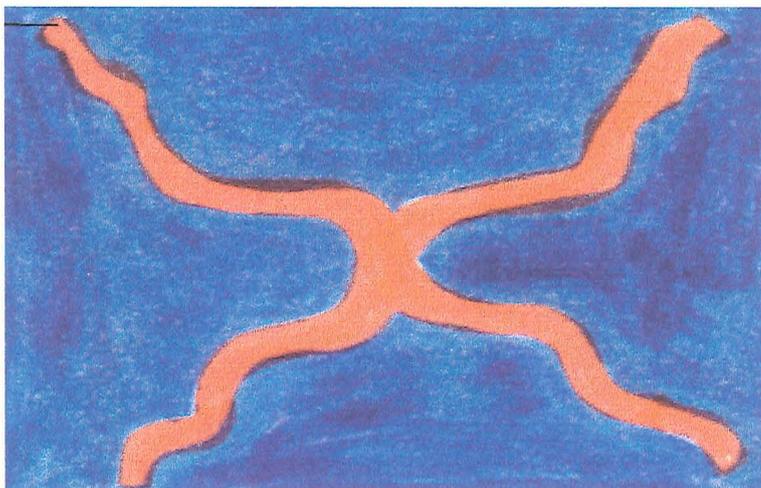


Two box task

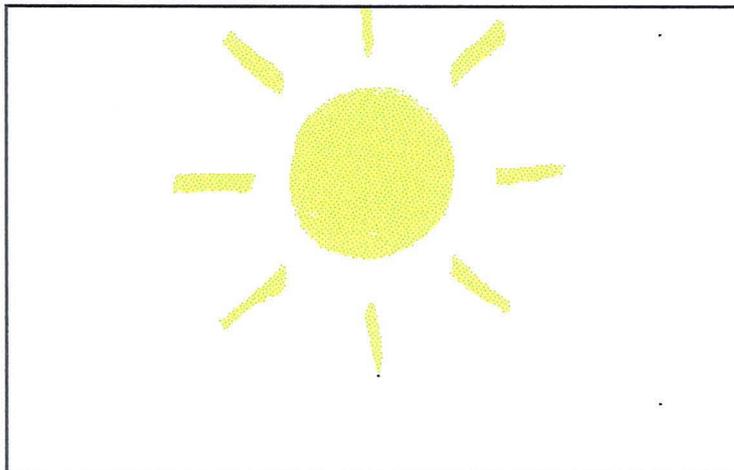
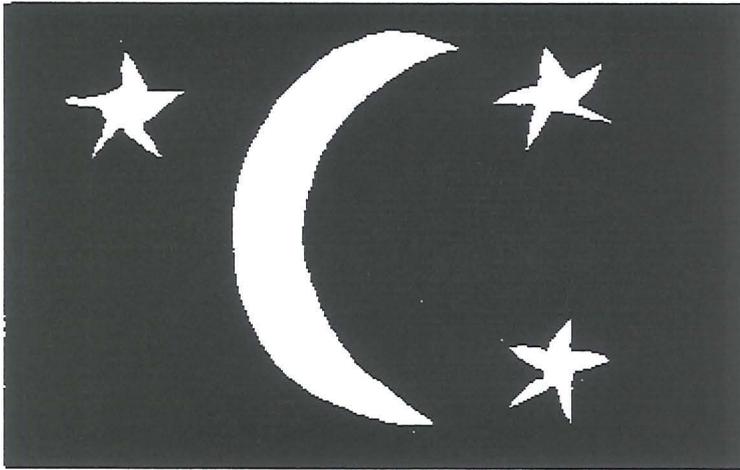


Appendix Ten

Day-Night Control Task Cards



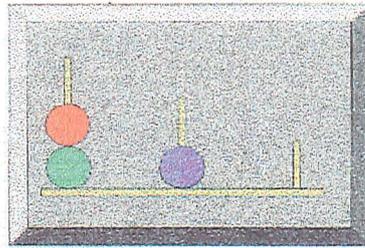
Day-Night Experimental Task Cards



Appendix Eleven

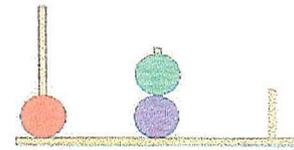
Tower of London planning task

Subjects starting position



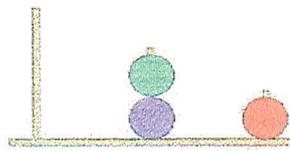
= STANDARD

EXAMPLE



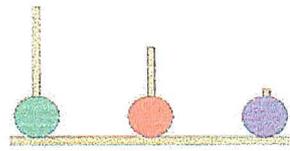
3 moves

(1)



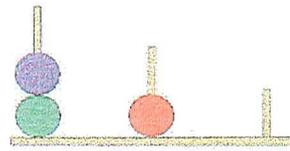
2 moves

(2)



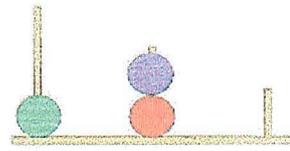
2 moves

(3)



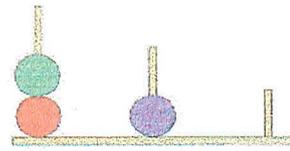
3 moves

(4)



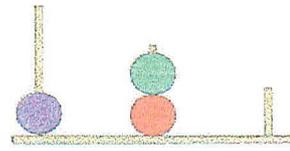
3 moves

(5)



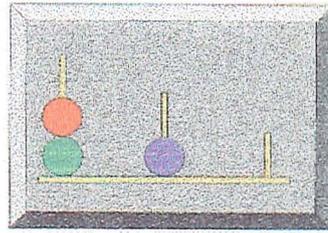
4 moves

(6)



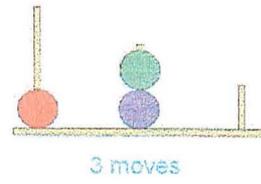
4 moves

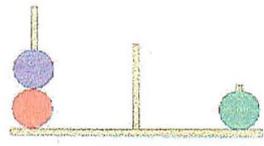
Subjects
starting
position

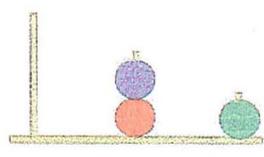


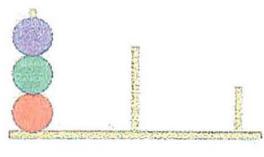
= STANDARD

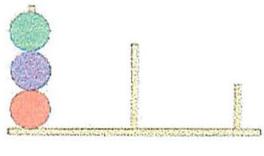
EXAMPLE

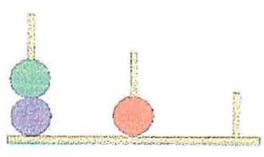


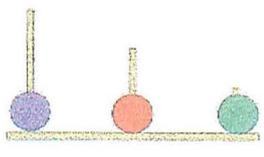
(7)  4 moves

(8)  4 moves

(9)  5 moves

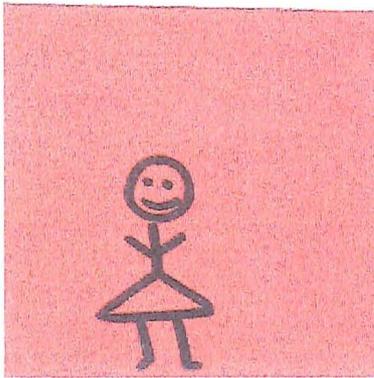
(10)  5 moves

(11)  5 moves

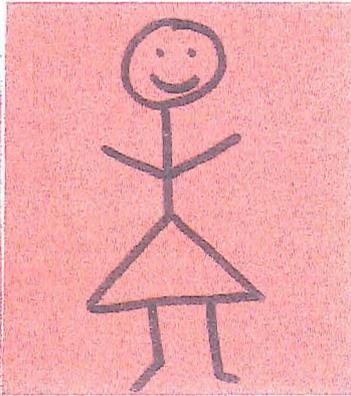
(12)  5 moves

Appendix Twelve

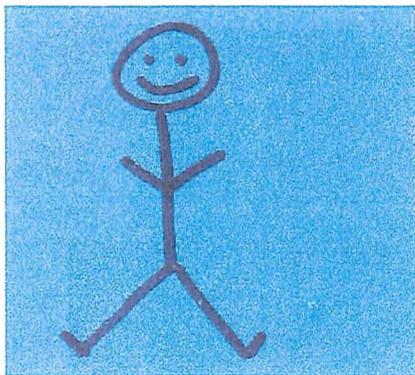
Family Structure Cards



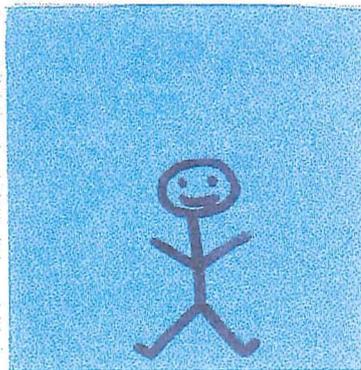
Girl



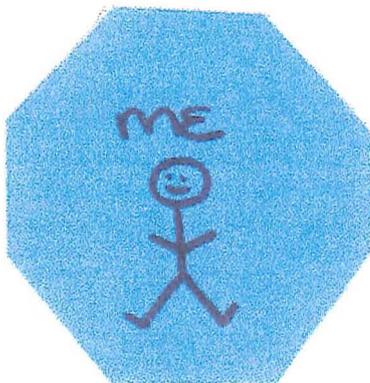
Woman



Man



Boy

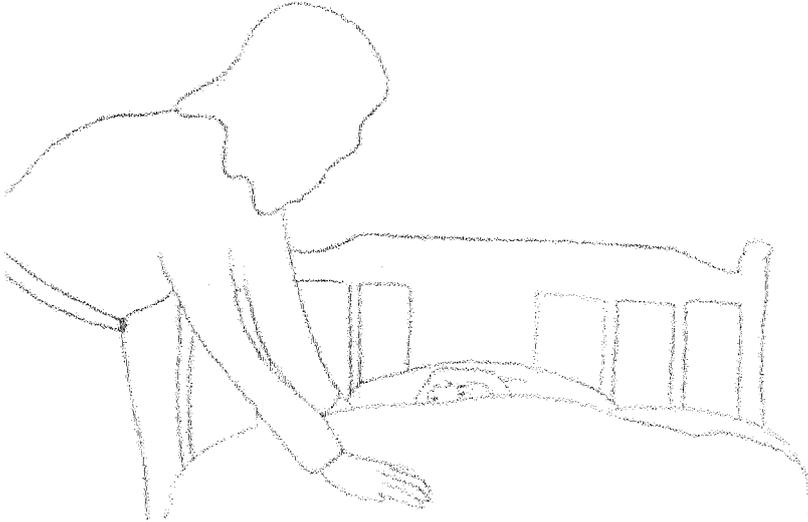


Self (Male)

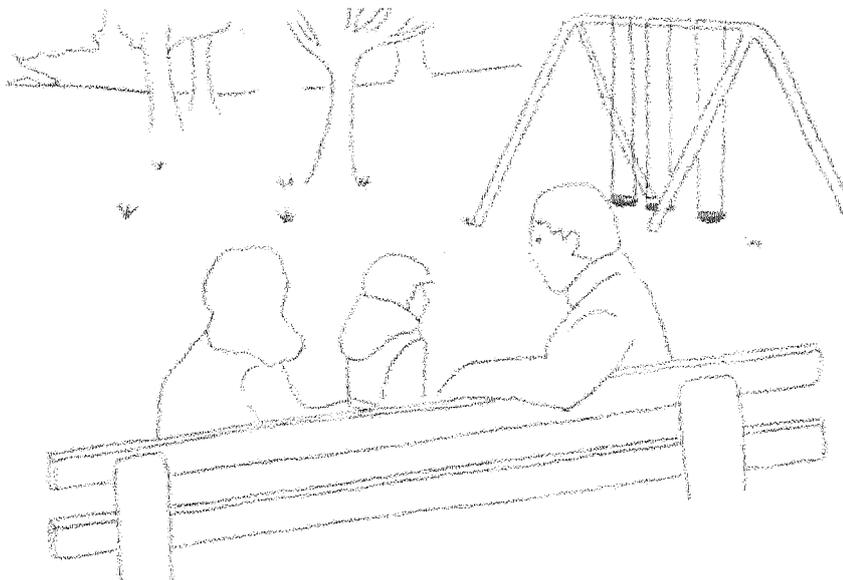
Appendix Thirteen

Separation Anxiety Test pictures; girls

The pictures used with boys were identical except that the child pictured was male.



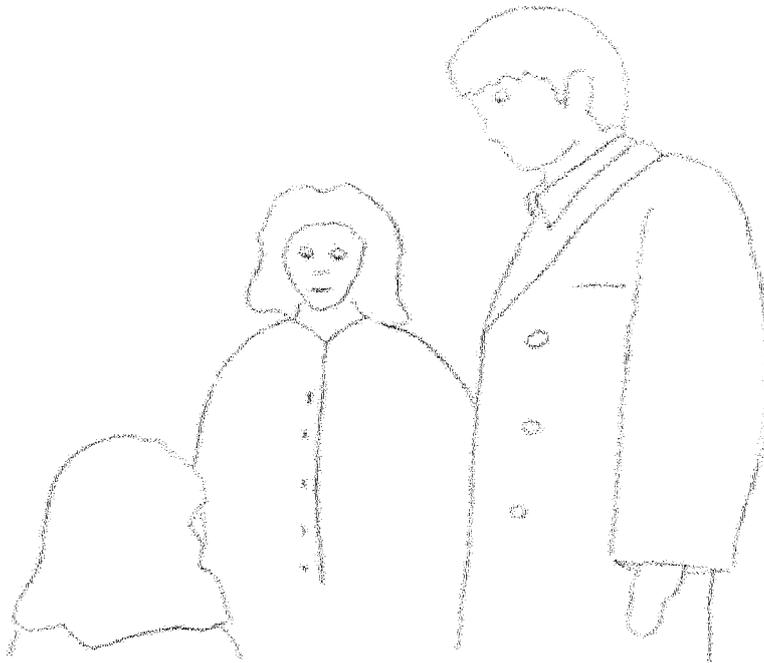
1. The mother tucks the child in bed and leaves the room.



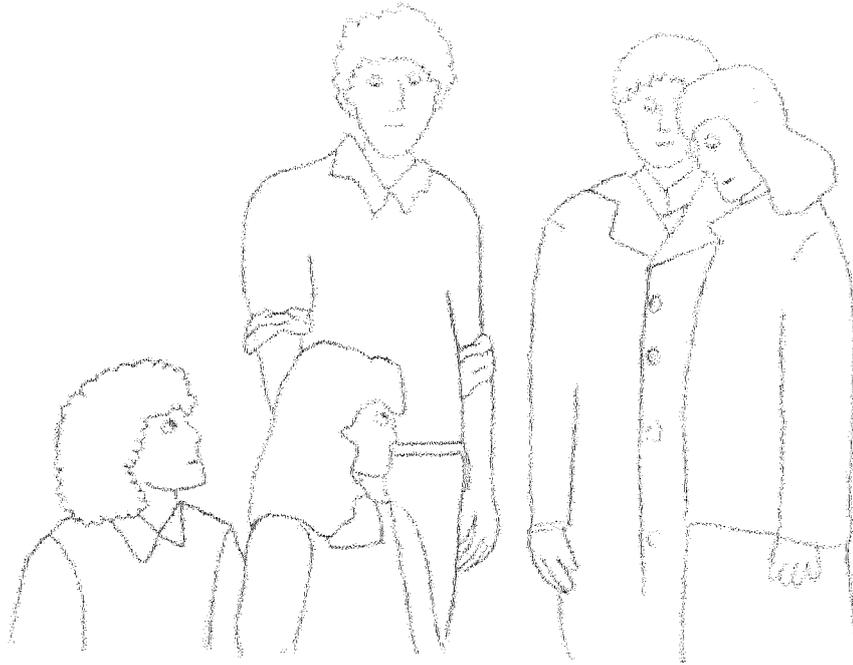
2. Park scene; parents tell the child to run off and play for awhile. They want some time alone together to talk.



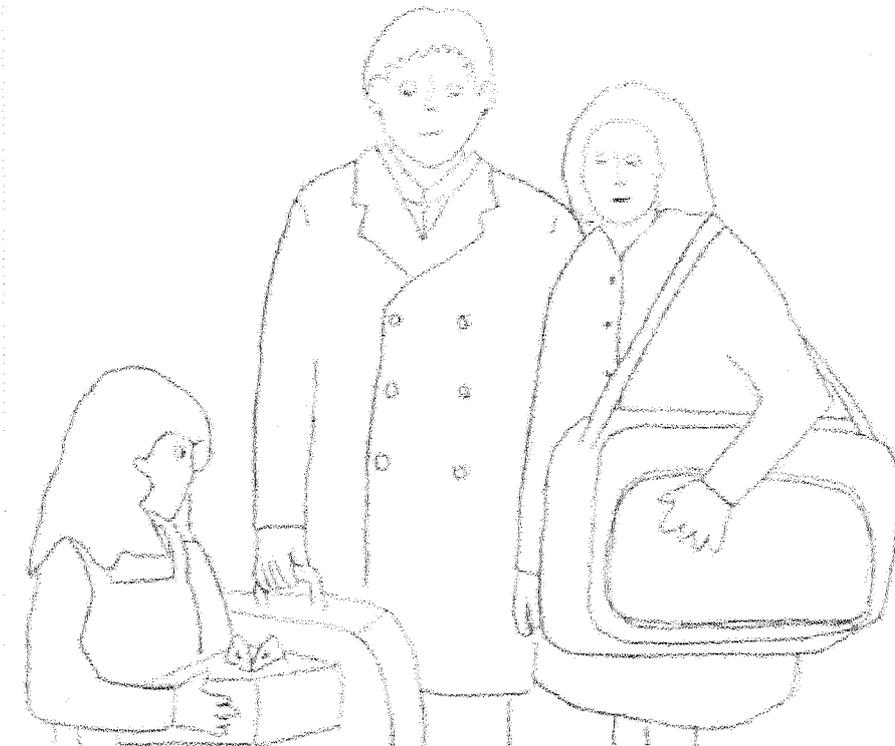
3. Child's first day at school; moment of parting from parent.



4. Parents go out for the evening leaving the child at home.



5. The parents go away for the weekend, leaving the child with the aunt and uncle.



6. Parents are going away for two weeks; prior to their departure they give the child a gift.

Appendix Fourteen

Multiple Regressions

Dependent Variables: Peer nominations for bully, victim and defender at time two (after an interval of 3.5 to 4 months)

Predictor variables entered Stepwise:

Bullying/Victimisation/Defending peer nominations at time one

Scores on attachment scales

Social Acceptance

Social Rejection

Number of reciprocal Like most nominations

Score on theory of mind, Tower of London, day-night task and deception task

Gender

Teacher ratings of physical strength

Number of adults, children, others in the home

Multiple Stepwise Regression Analyses: What predicts bullying, victimisation and defending 3.5 to 4 months later?

Variables entered	R	R ²	R ² change	F	Beta
BULLY					
1. Initial bully nominations	0.83	0.68		132.37**	0.83
VICTIM					
1. Reciprocal liking	0.44	0.19		14.51**	0.44
2. Gender	0.51	0.26	0.07	10.41**	-0.26
DEFENDER					
1. Initial defender nominations	0.50	0.25		20.74**	0.50
2. Attachment; pessimism/optimism	0.59	0.34	0.09	15.84**	0.31

* $p < 0.05$; ** $p < 0.01$

The multiple regression reveal that initial bully nominations account for 68% of the variance of later bullying nominations, but that none of the other variables significantly

add to this. This reflects the stability of bullying over this study as reported in Chapter Three.

Victim nominations were not predicted by initial victim nominations, but having reciprocal friends accounted for 19% of the variance in later victimisation nominations. Being female still increased the prediction and together the variables explained 26% of the total variance. These findings reflect the low stability of victimisation (as reported in Chapter Three).

Initial defender nominations were the best predictor of later defending behaviour, explaining 25% of its variance. More optimistic responses to the hypothetical situations in the SAT also added to the prediction, with both variables accounting for 34% of the total variance in defending. This also reflects the relative stability of defending behaviour over the study (see Chapter Three).

Due to the stability of nominations for bully and defender, the regressions performed were predominately predicting change in the roles. As a result, additional regressions were performed in which initial numbers of nominations for bully, victim or defender were not entered and the other predictors were entered simultaneously. These were done in order to examine whether these variables predicted any of the variance in later bully, victim or defender nominations.

Multiple Regression Analyses: Overall models.

	R	R ²	Adjusted R ²	F
BULLY	0.72	0.52	0.30	2.32**
VICTIM	0.59	0.35	0.07	1.25
DEFENDER	0.61	0.38	0.09	1.29

*p<0.05; **p<0.01

Bully

The gender of the individual significantly added to the model predicting the variance of bullying nominations at time two [Beta=0.41, t=2.88, p<0.01]. Score on the attachment scale for pessimism/optimism also added to the model significantly [Beta=0.54, t=2.70,

$p < 0.01$]. Standardised Like Least nominations also significantly added to the model [Beta=0.35, $t=2.32$, $p < 0.05$]. This suggests that boys are more likely to receive bullying nominations at time two, that the more pessimistic a child is about the separation situations in the SAT, the more bullying nominations they will receive later and the more Like Least nominations a child receives, the more bullying nominations they will receive at time two.

Victim

The model did not significantly predict any of the variance in later victim nominations overall. However, the number of reciprocal like most nominations significantly added to the model predicting the variance of victimisation nominations at time two [Beta=0.52, $t=2.61$, $p < 0.05$]. Standardised score on the theory of mind tasks also predicted victimisation nominations at time two [Beta=-0.40, $t=-2.11$, $p < 0.05$]. This suggests that having reciprocated like most nominations is predictive of more victimisation nominations at time two. In addition, poor performance on the theory of mind battery is also predictive of victimisation at time two.

Defender

None of the variables significantly predicted defender nominations at time two.

Appendix Fifteen

Intercoder agreement on the SAT

Coding for Seven children by coder A (Gary Resnick) and coder B (Claire Monks) on the Separation Anxiety Test from which intercoder agreement was calculated.

Child ID	Child 1		Child 2		Child 3		Child 4		Child 5		Child 6		Child 7	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Emotional Openness	4/5	4	7/8	7	2/3	2	6	6	5	7	7	7	3	2
Dismissing/Devaluing	3	4	2	2	4/5	4	3	4	3	2	2	3	4	5
Self-Blame	8	7	8	7	7	7	7	7	7	7	8	7	8	7
Resistance/Withholding	3	2	8	7	2/3	2	6	8	5	8	8	8	2	1
Preoccupied Anger	8	8	8	8	7	8	7	8	8	8	8	8	8	8
Displacement	5	4	8	7	4/5	4	6	7	6/7	7	8	7	2	4
Pessimism/Optimism	5	5	8	7	3	4	5	6	4	7	6	7	3	5
Coherence	3	2	7	7	1	2	5	6	4	7	6	7	2	1
Solutions	5	5	7	7	5	4	7	7	7	7	8	8	5	5
Primary Classification	DS1	DS1	F4	F3	DS2	DS1	F2	F2	DS3	F3	F4	F2	DS1	DS1