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The Social Cognitions of Withdrawn Children

by

Cherami Wichmann

A thesis submitted to the
Faculty of Graduate Studies and Research
in partial fulfillment of the
requirements for the degree

Doctor of Philosophy

Carleton University

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The undersigned recommend to the
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submitted by

Cherami Wichmann

in Partial fulfillment of the requirements for
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Abstract

The purpose of the present research was to examine the social cognitions of peer-identified withdrawn children. In particular, it was hypothesized that withdrawn children would demonstrate distinct patterns of social-cognitive processing that would differentiate them from peer-identified aggressive and comparison children. Participants included 457 children from grade four, five, and six (54% females and 46% males). These children completed a selection of self- and peer-report measures including: 1) a peer-rated behavioural nomination measure; 2) a measure of hostile intent biases and social responses to ambiguous situations; 3) a measure of social goals and self-efficacy; and 4) a newly developed measure of causal attributions. An extreme groups procedure was used to identify three groups of children: 1) passive-solitary ($n=50$); 2) aggressive-disruptive ($n=53$); and a non-aggressive non-withdrawn comparison group ($n=206$). Among the significant findings, it was discovered that peer-identified withdrawn children did not differ from comparison children with respect to intent attributions, goals and self-efficacy evaluations. However, withdrawn children displayed a pattern of self-defeating attributions for social situations and indicated a preference for non-assertive, withdrawn strategies to deal with hypothetical conflict situations. Findings are discussed with respect to implications for intervention, and directions for further research are presented.

Acknowledgments

I've made it...again.

The third and last time that I will sit down at the eleventh hour to try to condense my gratitude to the people in my life into a few measly sentences. This last one has been the longest and hardest road so far, and has required even more perseverance. As a result, I have required more understanding and support from those around me.

Enough waxing philosophic, here goes...

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See ya.

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Children spend much of their time in the company of peers. In this milieu they develop of the social and social-cognitive competence that will affect subsequent learning and social interactions (Rubin & Coplan, 1992). Children who do not experience sufficient quantity or adequate quality of interactions with those in their social environment may experience later social and emotional problems, including depression, loneliness and poor self-perceptions (Rubin, Bukowski & Parker, 1998; Rubin, Burgess & Coplan, in press; Rubin, Chen, McDougall, Bowker & McKinnon, 1995). Further, a lack of social competence has been associated with lower popularity and increased dissatisfaction with social relationships (e.g., Hymel, Woody, & Bowker, 1993). Finally, poor peer relations in childhood may predict difficulties in adulthood (Bell, Martine, Meredith, Schwartz, Siani & Marrow, 1993).

Researchers have used many different perspectives to examine children's social competence with peers. One of the most common perspectives has been a social-cognitive approach (e.g., Crick & Dodge, 1994; Dodge, 1986). A focus on the way that children think about their experiences may point to certain information-processing biases leading to social maladjustment (Crick & Dodge, 1994). Further, use of a social-cognitive approach to understanding children's problems of social adjustment suggests areas in which they hold biases or display deficits.

Focus of the Present Research, Delimitations, and Framework

According to Quiggle, Garber, Panak, and Dodge (1992), it is the "...particulars of the transgressions and the points in processing at which they occur that are hypothesized to distinguish one form of psychopathology from another." (p. 1306). That is, instead of assuming social maladjustment to be associated with global deficits in social cognition, researchers need to pinpoint particular areas in which children display deficits and indicate

biases in their thought processes. This process will allow researchers to determine whether there are particular patterns of processing that differentiate subgroups of children who display various forms of social maladjustment.

Quiggle and colleagues (1992) pointed out that few studies have contrasted the social information processing skills of children who exhibited various types of social adjustment problems such as depression, aggression, or social withdrawal. As a result, they believed that "it is unclear whether particular social-cognitive patterns are specific to particular disorders or are characteristic of problem behaviour in general" (p. 1306). In view of this statement, the purpose of the present research was to examine the social cognitions of children rated as withdrawn with attention to patterns of similarities and differences between them and groups of children identified as aggressive and "average".

The children in the present study were from grade four to six (in middle childhood); thus research reviewed in the following section was restricted to those studies of children from a similar age range unless otherwise noted. The framework of the research review follows: 1) the construct of social withdrawal is briefly discussed; 2) theoretical perspectives from which to examine children's social-cognitive skills are introduced; 3) a model of social-information processing used to guide research in the area is introduced; 4) research on each of the aspects of social cognition of interest to the present research is reviewed and evaluated; and 5) a discussion of the areas of research that have been under-examined and which were a focus of the current study is presented.

Social Withdrawal in Childhood

There has been substantial variation in the definition and measurement of social withdrawal. Certainly, there have been many different terms used interchangeably throughout the literature, such as inhibition, shyness, passive solitude and social reticence.

Further, it appears that these terms refer to multiple dimensions of the construct of withdrawal. However, there have been many recent works devoted to untangling the literature on social withdrawal and synthesizing this diverse knowledge base (see for example, Rubin et al, in press; Schmidt & Schulkin, 1999). For the purpose of the present study, social withdrawal includes children's reactions (e.g., wariness, fearfulness) to both novel and familiar social situations.

Socially withdrawn elementary school-aged children appear to be at risk for developmental difficulties and inadequacies, especially of an internalizing nature (e.g., Fox, Calkins, Porges, & Rubin, 1995; Hymel, Rubin, Rowden, & LeMare, 1990; Rubin, 1985; Rubin & Mills, 1988; Rubin, Hymel, Mills & Krasnor, 1991). For example, children identified as socially withdrawn have been found to report more negative self-perceptions, express greater feelings of social anxiety and loneliness, and were more likely to report feeling depressed in middle childhood and early adolescence than those identified as non-withdrawn (Renshaw & Brown, 1993; Rubin, 1993; Rubin et al., 1995). Further, researchers have reported a negative association between withdrawn behaviour and peer status (Younger, Gentile & Burgess, 1993). Peer rejection itself has also been associated with a variety of negative outcomes for children and adolescents (Parker & Asher, 1992).

Children who are withdrawn may face a "double-bind": they do not interact with peers due to anxiety and perhaps a fear of negative evaluation. However when these children reach middle childhood, their quiescent behaviour of a few years previous may have become an anomaly at a stage in which peers are highly influential and important to social adjustment.

Identification of Social Withdrawal

To identify groups of children rated as sociable, aggressive, and socially withdrawn, researchers have employed behavioural observations, as well as parent-, teacher-, and peer-reports (Younger, Schneider, Wadeson, Guirguis & Bergeron, 2000). Of these methods, peer nominations have been considered to be superior to other approaches due to the unique nature of the information that can be garnered from agetates. Among the most utilized identification procedures is the Revised Class Play (RCP) (Masten et al., 1985), a peer-nomination measure designed to assess children's social behaviours. This measure has sound psychometric properties and has been often utilized in the assessment of social withdrawal (e.g., Rubin & Mills, 1988; Chen et al., 1992), and aggression (e.g., Realmutto, August, Sieler, & Pesson-Brandao, 1997) for children in grades four to six.

Masten and colleagues have reported that the thirty items cluster into three factors: 1) sociability-leadership (e.g., "a good leader", "someone you can trust"); 2) aggressive-disruptive (e.g., "picks on others", "gets into lots of fights"); and 3) sensitive-isolated (e.g., "feelings get hurt easily", "rather play alone than with others"). However, some researchers (e.g., Rubin & Mills, 1988) have suggested, on theoretical rather than statistical grounds, that the third factor is actually composed of two sub-factors: passive solitude (e.g., "rather play alone than with others") and active isolation from peer rejection (e.g., "is often left out").

The RCP has been used extensively in research on social withdrawal, and demonstrates good reliability and validity (e.g., Bowker, Bukowski, & Sippola, 1996; Rubin, 1993; Burgess & Younger, 1995; Chen, Rubin, & Sun, 1992; Hymel, Rubin, Rowden, & LeMare, 1990; Rubin, Chen & Hymel, 1993; Rubin, Hymel & Mills, 1989; Rubin & Mills, 1988). Internal consistency coefficients for the factors have been reported to range from .81 to .97 (Chen et al., 1992; Masten et al., 1985). The nominations are stable across periods of

six ($r=.77$ to $.87$) and 17 months ($r=.63$ to $.66$; Masten et al., 1985). As well, scores on each factor of the RCP have been found to correlate meaningfully with other measures of social competence (Masten et al., 1985; Realmutto et al., 1997). Finally, the RCP has demonstrated discriminant validity, predicting membership in a disruptive-aggressive group (Realmutto et al., 1997). Due to the strong psychometric properties of this measure, and the fact that it has been used extensively to identify withdrawn children, this measure was used to identify groups in the present study.

Social Withdrawal and Social Cognitions

Based on the research discussed above, it appears that children's lack of social interaction with agemates may lead to later social and social-cognitive deficits which may in turn affect self- and peer-perceptions. Social cognitions play an important role in children's social competence, impacting on the ways that children relate to, and interact with, others. The question then becomes, "Do children rated as withdrawn display particular patterns of social cognitions that would differentiate them from other children, both those with and without problems"? This question has formed the basis of the research presented currently.

As previously noted, there has been very little research that has had, as its focus, the social cognitions of withdrawn children. Due to this fact, the research reviewed subsequently includes a discussion of the association between social cognitions and behaviours believed to reflect internalizing disorders (e.g., anxiety, depression, and loneliness) in addition to research focused on social withdrawal. The review of this body of literature is relevant, as both loneliness and depression have been associated with the display of social withdrawal in middle childhood (Rubin et al., in press).

Social Cognitions

The term "social-cognitive skills" refers to the knowledge base and cognitive abilities required by children to operate in the social world. Aspects of social cognition are complex and difficult to assess, primarily because researchers are trying to infer how children think about their social world, and why they act and feel as they do. Moreover, there have been many different perspectives used to examine children's social cognitions.

Theoretical Perspective on Social Cognition

Theoretical approaches taken to study children's social cognitions have included, for example, the Structural-Developmental approach, Attribution theory, Decision Making theory, Information Processing theory, and Social Information Processing theory. By far the most popular approach, particularly in recent years, has been the Social Information Processing (SIP) model of Dodge and colleagues (Crick & Dodge, 1994; Dodge, 1986; Dodge et al., 1986). Below several alternative perspectives are presented, followed by a detailed description of the SIP perspective that guided the present research.

Structural Developmental approach. The Structural-Developmental approach had its roots in research on coordination of perspectives, originally referred to by Piaget (1932, 1948), Flavell (Flavell et al., 1968), and Kohlberg (1969). From this perspective, individuals are seen as progressing through an invariant sequence of increasingly complex cognitive stages throughout their lifetimes. Theorists sought to identify a universal structure that formed the basis of these stages and led persons through the same sequence and number of stages throughout their lives, regardless of their sociocultural background.

Selman's (1976, 1980) model of "interpersonal understanding" was based on this perspective. He viewed interpersonal understanding as the cognitive ability to coordinate perspectives of the self and others. This framework has provided a basis for analyzing the

development of understanding in different domains: individuals; peer-group relations; parent-child relations; and friendship. Moreover, the model has been used to delineate differences in the interpersonal understanding of children who are either socially competent or displaying social maladjustment.

This theoretical perspective is useful for the examination of global aspects of cognition, such as peer relations. However, it does not provide for a level of analysis that would allow researchers to pinpoint specific areas in which children may display social-cognitive deficits. For example, this model does not address whether children attributed hostile intent to others, or the process of selecting social goals.

Attribution theory. Although the first formal statements of attribution theory were made in the late 1960's (Jones & Davis, 1965; Kelley, 1971), attribution theory had its roots in the late 1950's when psychologists became interested in how individuals make causal judgments and inferences concerning events in their social world. Heider (1958) and other theorists concluded that individuals act as "lay scientists" when interpreting stimuli. Researchers in this area conducted studies examining, for example, the process leading to attributions of causality (e.g., Thibaut & Riecken, 1955).

Essentially, attribution theory states that individuals approach events logically and constructively, searching for the causes of events and trying to determine the other's intent. These attributions form the basis of their responses, but motivations also play an important role. In fact, these theorists hypothesized that responses depended on the individual's level of motivation in a given situation.

With respect to social cognitions in general, limitations of this theory are obvious. The most important drawback being the fact that this perspective is focused almost entirely on attributions (causal and intent) and does not include other aspects of social cognitions

(e.g., social goals) or how attributions might affect other social cognitions (e.g., response choices).

Decision making theory. Decision Making theory had its roots in cognitive psychology, specifically in the determination of how individuals make judgments or decisions (e.g., Simon, 1957). Theorists came to the conclusion that individuals use heuristics to make inferences. The most important heuristics with respect to the present discussion are the "representativeness" and "availability" heuristics. Representativeness leads individuals to class stimuli, based on salient features, into a particular category. Availability refers to the repetitiveness of a stimuli leading to a likelihood judgment for the occurrence of an event. For example, a child may see a tall, stocky peer and immediately view him as a bully (representativeness). If the "bully" begins to laugh, the child might assume the he or she is being teased, particularly if he/she had been teased in the past (availability). Heuristics are a necessary short cut in a complex social environment as they assist with the management understanding of the social world. It is clear that these assumptions can lead to correct inferences; however, they can also lead to errors of judgment.

This theory led to a recognition that children might utilize scripts, schemata, or heuristics in their everyday interactions. However, there were still some limitations of this approach. The most obvious of these is that this theory takes a very narrow view of interactions, and does not expand to encompass other aspects of social cognitions (e.g., social goals). Further, there is no recognition of other factors, aside from heuristics, that may impact on social interactions.

Information processing theory. Research on Attribution and Decision Making theories led to the development of an Information Processing perspective. Proponents of this theory postulate that behavioural responses to stimuli occur due to a sequence of

cognitive processes (Miller, Galanter, & Pribaum, 1960; Neisser, 1967; Newell & Simon, 1972). Information enters through short-term sensory store and is transferred to short-term memory (through processes such as "chunking") and then to long-term memory through rehearsal. In addition, it is thought that individuals construct mental representations of the stimulus in order to simplify actual stimulus information. These processes are susceptible to deficits and biases.

Within this theory, behavioural decision making is based on the application of heuristics and schemata to accessed responses (Dodge & Crick, 1990). Similar to the perspective of attribution theorists, cognitive psychologists utilize the concept of the individual as a "lay scientist" in their interactions in combination with a component process theory to develop the idea of a "cognitive correlates" approach to assessing intellectual skills (Reznick, 1979). This approach encouraged a focus on individual's social processing skills, such as encoding, as well as on other social cognitive processes. These processes were utilized in an attempt to target specific skill deficits leading to academic difficulties.

Sternberg (1977) utilized this cognitive component approach, analyzing cognitive tasks into information-processing components, in order to identify specific skills which would improve overall academic performance. This theory, although originally applied solely to cognitive behaviour in an academic setting, has many advantages over the previously mentioned perspectives. The use of specific components to describe the process of cognition led to more testable hypotheses that would include many different aspects of cognition. In addition, this theory allowed for an examination of deficits in processing as well as an examination of the course of adaptive processing.

Social information processing theory. The Social Information Processing theory (SIP) is a further development of the cognitively focused IP theory. McFall (1982) and

McFall and Dodge (1982) proposed that performance in social situations could be examined in term of processing of social cues. They focused on three processes as integral to this concept: encoding and interpretation; response decision; and response enactment. Competent social behaviour was thought to arise from skillful processing, while maladjustment was thought to stem from deficits in any of these processes.

In 1986, Dodge and colleagues proposed a model of social information processing which combined much of the social and cognitive research (such as that cited above) and elaborated on the steps involved in a social interaction. Other models of social information processing have been developed (e.g., Rubin & Krasnor, 1986; Slaby & Guerra, 1988; Yeates & Selman, 1989) and utilized to examine children's social adjustment. These models have provided many important insights into children's social behaviour.

A Model of Social Information Processing: Crick & Dodge (1994)

In 1994, Crick and Dodge proposed a reformulated model of Social Information Processing based on the earlier work of Dodge and colleagues (Dodge, 1986; Dodge et al., 1986). This model represented an attempt to incorporate advances in the field of social cognition, which occurred in the intervening ten years, with concerns surrounding the limitations of traditional information processing models, such as serial processing and linear progression of steps. The resultant model is well-developed, addresses many of the concerns associated with the original offerings, and has served as the basis for a majority of the empirical research in the area of social cognitions put forth recently.

Aside from the fact that it has been widely accepted and used to guide research, some of the advantages of this model include: 1) a perspective of information processing that is parallel rather than linear; 2) provision of testable hypotheses concerning the impact of deficits in processing at particular steps in the model, and success in predicting children's

social adjustment (more so than the global constructs; Crick & Dodge, 1994); 3) the theoretical linkages proposed in the model have received empirical support, indicating that it may be very accurate in its depiction of children's information processing (see Crick & Dodge, 1994 for detailed discussion); and 4) this model may be used to examine "normative" social cognitions, as well as those of children who experience a myriad of social difficulties (e.g., children with learning disabilities as well as those with behavioural problems such as aggression and social withdrawal).

There are several characteristics of this reformulated model which represent an improvement over Dodge's (1986) original offering as well as over others' attempts. To begin with, as illustrated in Figure 1, the information processing depicted in this model is not linear. Like social interactions themselves, there may be many factors that function to affect processing at each stage. In addition, it is recognized that people engage in more than one process at a given time (parallel processing), rather than a more rigid sequential structure. Thus, this perspective offers potential advantages over other models of social cognition because it focuses on children's actions and reactions as they occur.

Second, the aspects of social cognition focused upon in this model are examined on a more micro level, as opposed to a focus on macro aspects, such as peer relations in general. This approach results in a closer linkage of actual behaviour to children's thought. Moreover, the importance of this model to research is evident: separate aspects of children's social cognitions may be examined as they fit into the processing model. In addition, children's social-cognitive skills can be evaluated with respect to their potential impact on information processing and social functioning as a whole. Finally, the SIP model is thought to be applicable to all children, regardless of whether or not they are experiencing

Figure 1.

Reformulated Model of Social Information-Processing (Crick & Dodge, 1994)

social difficulties. However, the majority of research conducted within this framework has focused on the social cognitions of aggressive and rejected children.

The SIP model of Crick and Dodge (1994) was used to guide the present research, and the aspects of social cognition chosen for inclusion in this study are discussed as they fit into the model. It may be that comparing the social cognitions of children with and without adjustment difficulties may provide information concerning cognitive styles, biases or patterns of behaviour which may contribute to the problems children experience. These insights in turn may be utilized to construct intervention programs from a social-cognitive standpoint.

Steps in processing. The SIP perspective has become a popular theoretical starting point for recent social-cognitive research, contributing to advances in the knowledge concerning the associations between social cognition and adjustment. The model presented by Crick and Dodge is no exception. Within this model, children enter into social interactions with biologically determined capabilities and a "database" of previous experiences. This database includes, for example, experiences within the parent-child relationship, and biological and physiological characteristics that may affect processing. For example, maternal over-control has been associated with withdrawn behaviours for young children (Mills & Rubin, 1998). This database will affect how children process information at any or all steps in the model.

In Step 1, children encode an array of cues from the social environment, both internal and external. Of all the available information, children will selectively attend to, and encode, particular cues. For example, children may be able to identify other's emotional state from their facial expressions, gaining important insight to use in subsequent processing (Alony, 1998).

In Step 2 children interpret the social cues, adding a dimension of meaning to stimuli they encounter. Biases in attributions (intent or causal) may occur at this stage, affecting processing in subsequent steps of the model. In addition to these biases, children's interpretations at this step may be affected by their perspectives, perceptions of the self and others, feelings of self-efficacy from previous exchanges, and previous experiences (i.e., social knowledge and social schemas; Johnston, Bristow, & Love, 2000).

Step 3 occurs following interpretation, when children select a goal or outcome that is desirable to them in the particular situation. Crick and Dodge (1994) describe goals as "...focused arousal states that function as orientations toward producing (or wanting to produce) particular outcomes"(p. 76). They believe that children will begin an interaction with a goal orientation or tendency. However, these goals may be revised or substituted in response to the dynamic social environment.

Next, children engage in Step 4, constructing or accessing a response to the social cues. At this stage they search their memory for a response to the situation, or may decide to use a new response. Generally, children will have a range of available responses that they consider using in any social encounter (Troop, 1999).

In Step 5 children select from among these responses, evaluating their utility for the situation, leading to a response decision. At this step there are a number of factors that may affect children's evaluations of possible responses. These include outcome expectations, children's self-efficacy for utilizing the response, and the appropriateness of the response. At this stage, previous experiences including what worked and did not work at other times, will also be important. In Step 6 the chosen response is enacted.

Social Cognitions: Areas of Assessment

Social Cognitions and Behaviours

Crick and Dodge (1994) reported a strong association between children's behaviour and their performance at different steps in social information processing. Thus, it appears that children who exhibit maladaptive behaviours may also exhibit patterns of maladjusted social information processing. In fact, there has been much research concerning the social cognitions and processing of children identified as aggressive and rejected. Findings from this research have indicated particular patterns of processing by children who display maladjustment.

Social cognition and peer relations. Two major sources of maladjustment that can lead to social problems in childhood include aggression and social withdrawal (Quay, 1986). Of these two sources, the study of childhood aggression has traditionally been more prolific and widespread. There is a wide and varied body of literature which indicates that children who engage in externalizing (i.e., acting out and aggressive) behaviours will be at risk for social and emotional problems both in the present and over their life course (see, for example, Rubin & Pepler, 1991). Aggressiveness, teacher-, peer- and parent-rated, has been associated with lower ratings of likeability by peers, generally poor peer reputation, and social incompetence. In addition, aggressive children have been reported to display social-cognitive biases and deficits which affect their social problem solving and interactions (e.g., Crick, 1995; Crick & Dodge, 1994; Pakaslahti, 2000; Yoon, Hughes, Cavell, & Thompson, 2000).

Little attention has been given to the social cognitions of children rated as shy and withdrawn. It is very important for researchers to examine this area. Determining the way children think about their social world is the best starting point for possible intervention.

The question of whether the patterns of social cognition and processing of peer-identified withdrawn children differ significantly from those of children rated as prosocial and average, needs to be resolved. From an intervention standpoint, it is important to determine similarities and differences in the social cognitions and processing of children who exhibit maladaptive behaviours (e.g., aggression and withdrawal).

Processing Patterns: Same or Different?

There is very little research available to suggest whether peer-identified withdrawn and aggressive children will be more similar or different in their patterns of social information processing. Thus, one important goal of this research was to examine the similarities and differences in the social cognitions and processing of children who are perceived as withdrawn compared to their peer-rated aggressive and "average" agemates. There are at least two possibilities to guide expectations regarding this issue. First, peer-rated maladjusted behaviours may be globally associated with biases and deficits in processing, regardless of the nature of that behaviour. In this case, peer-identified withdrawn and aggressive children would exhibit the same deficits. Second, children rated as withdrawn may not have deficits in processing. In fact, they may be indistinguishable from peers who do not exhibit maladjusted behaviours in processing, but again, differ in their ability to act upon their prosocial cognitions.

1. Biases and/or deficits in processing. The display of maladjusted behaviours in general, that is aggression as well as withdrawal, may be associated with particular processing biases and deficits. From this perspective, here are at least two developmental trajectories: peer-identified withdrawn and aggressive children may display the same patterns of processing, but differ at the behavioural enactment stage; or 2) children rated as withdrawn may display unique biases and deficits.

Children rated as withdrawn may display unique patterns of processing deficits and/or biases. Based on knowledge of the working models of these children (see Rubin et al., in press), and the association between withdrawal and behaviours believed to reflect internalizing disorders, it is possible that children who exhibit a pattern of social withdrawal may see the world as an unpredictable place. As a result, they may respond to social encounters with anxiety and wariness.

2. Inhibition of behavioural enactment. Alternatively, children who engage in withdrawn behaviours may process social situations similarly to their more well-adjusted peers. In fact, it is possible that the only difference between these children and their peers is their ability to act in a manner consistent with their processing. In this case, the processing of children rated as withdrawn would not differ from "average" peers at in any step in the model apart from the enactment stage.

There is considerable evidence to suggest that children rated as withdrawn may have difficulty in the step of behavioural enactment in the SIP model. For example, researchers have reported an association between social withdrawal and poor emotional regulation and social inhibition (Rubin et al., in press). Any of these characteristics has the potential of greatly impacting on the behaviour of children rated as withdrawn, independent from their processing at other steps. Regardless of the strategy they feel is appropriate for the situation, their ability to adequately produce the behaviour may be poor. Although integral to the understanding of the social information processing of children rated as withdrawn, no direct assessment of the factors associated with behavioural enactment was assessed in the present study. Current social cognitive aspects of processing were chosen to provide preliminary information on children's reported intent, goal and behavioural preferences. Once the

underlying information on these aspects is available, the examination of children's behaviours should be undertaken.

In the following sections, research on five aspects of children's processing, from different steps in the SIP model, are reviewed. These aspects of processing were chosen for several reasons, including the fact that established measures were available to assess each domain. This requirement allowed findings from the present research to be integrated with prior research. The areas chosen for examination in the present study were: 1) intent attributions; 2) causal attributions; 3) social goals; 4) social strategies; and 5) self-efficacy perceptions. For each section, a general description of the component, and reviews of research conducted with children identified as aggressive, rejected, and as engaging in behaviours believed to reflect internalizing disorders are presented. Finally, the findings and limitations are summarized.

Intent Attributions

Attributions of intent are an important part of children's interpretation of social cues. Attributions are an aspect of social perception involving the ability to perceive a social event correctly and act appropriately. In processing any social event, children must determine the intent of the others involved. Perceiving an act as having a malevolent intent as compared to a positive or benign one will necessarily affect subsequent processing. In fact, according to the model of Crick and Dodge (1994), social attributions play a pivotal role in behavioural decision making, impacting on the types of responses children choose.

There is very little research that has addressed the source of these biases. It is possible that biases develop early in life, through early internal working models (Calkins & Fox, 1992), and function to affect subsequent social relations. Alternatively, they may develop in response to experiential factors. It is likely a combination of these two

possibilities which leads to intent biases. In the present study, only the existence of biases was examined.

Research with children identified as aggressive. The importance of attributions of intent to children's social behaviour is clear for children who engage in aggressive acts; thus, it may be an important issue for children rated as withdrawn as well. Robust evidence supports the association between social maladjustment and intent attributions, particularly for children identified as aggressive (e.g., Crick, 1995; Crick & Dodge, 1996; Quiggle et al., 1992; Waas, 1988). For these children, interpretation have been found to affect later processing. For example, the exhibition of hostile attribution biases has been reliably associated with aggressive responses (Erdley & Asher, 1996). There has also been some support for the hypothesis that children who engage in aggressive behaviours do not take the time to encode all aspects of an ambiguous situation. It is likely that they rely on past experiences and selective attention to social cues to make attributional decisions. One major limitation of the research reported by Dodge and colleagues was that the samples consisted of lower-middle class males. Generalizing these findings to all children from grades three to six is questionable. However, the initial findings of Dodge have been reliably replicated with lower risk samples which included females and males (e.g., Brown, 1997; Crick & Dodge, 1996; Dodge & Coie, 1987).

Research with children who are rejected by peers. In order to determine whether the experience of social rejection was more important to the display of hostile attribution biases, than aggression, Waas (1988) examined the attributional biases of rejected males from grades three to five who had been identified as high-, or low-aggressive, compared to non-rejected children. Findings revealed that both groups of peer-identified rejected children displayed hostile attribution biases when no social information was presented (i.e., ambiguous

situations). Further, all of the children made more hostile intent attributions in the clearly hostile situations, and in the ambiguous situations in which there was high consistency (i.e., it seemed consistent that the peer would act in a hostile manner). Moreover, children identified as rejected-aggressive suggested more aggressive responses to the provocation than those who were not rejected, although they did not differ in this respect from the children identified as rejected low-aggressive.

Based on this study it appears that there may be few differences in the attributional biases across subgroups of children rejected by peers. This finding is not surprising, as it may be expected that children who experience negative peer interactions build expectations of negative treatment in future social situations. On the other hand, children who expect hostile acts from others may react in a manner that will lead to peer rejection (e.g., retaliation or avoidance). Extrapolating from this finding, one might hypothesize that children who are sociometrically rejected and viewed as withdrawn may exhibit hostile attributional biases in ambiguous situations.

Research with children identified as engaging in behaviours believed to reflect internalizing disorders. Crick, Grotpeter and Rockhill (1997) examined the relation between actual peer experiences and feelings of loneliness for children from grade three to six. They believed that feelings of loneliness would be affected not only by interactions with peers, but also by the way children think about those interactions. Children were asked to complete peer nominations for behaviours and liking, and a measure of intent attributions that included five ambiguous instrumental conflict situations and five ambiguous relational conflict scenarios.

Crick and colleagues (1997) reported a positive association between loneliness and negative treatment (rejection, overt and relational victimization). Gender differences were

also reported. For females, hostile attributional biases (for instrumental situations) were positively associated with the experience of negative peer relations and negatively associated with positive peer treatment. However, there were no significant associations between attributional biases and loneliness for males. This finding suggests that children who experience problems of an internalizing nature may see the world as a hostile place. Whether this is a gender-specific finding still needs to be determined with further research.

A second important study provided support for the suggestion that children identified as engaging in behaviours believed to reflect internalizing disorders, display attributional biases. Erdley and Asher (1996) reported that children from grades four and five, rated as withdrawn by teachers, attributed hostility to peers in ambiguous conflict situations approximately 60% of the time. This finding suggests that children rated as withdrawn may indeed be biased toward attributing negative intentions to others, regardless of their level of rejection. Certainly, Quiggle and colleagues (1992) reported that children identified as depressed or aggressive did not differ with respect to their level of hostile attributions, which was higher than the ratings of comparison peers.

In contrast, Harrist and colleagues (1997) included an assessment of intent biases in a recent study of teacher-rated subtypes of social withdrawal displayed by young children. They reported that children identified as non-withdrawn or actively-isolated endorsed higher ratings of hostile attributions than those rated as passive-anxious and unsociable-withdrawn. These findings suggest that young children identified as passively withdrawn may be less likely to see the world as a hostile place.

Summary and limitations. Children who hold a view of the social world as hostile probably display biases in their attributions for situations in which the intent of another is unclear. Although it has been established that children identified as aggressive hold these

types of biases, it is also possible that children who exhibit other types of social adjustment problems, such as social withdrawal and emotional distress, also see the world as hostile. This contention is partially supported by the research reviewed above.

There has been very little research addressing the attributions of children rated as socially withdrawn. In addition to determining whether biases exist for these children, researchers need to study how these perceptions may affect subsequent processing. Crick and Dodge (1994) would suggest that these biases affect processing at all subsequent steps, but it is possible that there may be differential effects depending on the form of maladjustment (e.g., aggressive versus withdrawn) children exhibit.

Causal Attributions

Causal attributions are somewhat more complex than those of intent because they involve judgments of why an event occurred. Crick and Ladd (1993) stated that "...being liked by peers (or even being extremely well liked as in the case of popular children) is not necessarily sufficient for emotional well-being; that is, an adaptive attributional style may also be required that facilitates enjoyment of social successes and adequate coping of social failures" (p. 251). Thus, it is important for children to take credit for their social success and to deal with failure in a way that will not handicap them in future interactions. However, children with adjustment difficulties who are experiencing social distress, this does not seem to be the case.

Until recently, most research concerning children's causal attributions has been focused on the attributions children make with respect to academic performance and achievement. However, now researchers are recognizing that success and failure in the social realm also has an important impact on children's adjustment. Weiner (1986) developed a complex model of causal attributions within a 2x2x2 matrix: the dimensions covered locus,

stability and perceived controllability. Although there has been much research on the impact of the dimension of locus in academic environments, there has been very little attention paid to the impact of causality for social outcomes. In general, endorsing an internal locus indicates a belief that there is a relation between one's behaviour and outcomes. An external locus of control indicates the perception that outcomes are determined by factors external to the self, such as other's personalities or whims.

Another important aspect of causal attributions is perceptions of the stability of events. For example, attributing social rejection to "stable" internal (e.g., one's social incompetence) or external (e.g., the hostility of the social environment) events may lead to expectations of rejection across similar situations. Moreover, if acceptance or social success is attributed to unstable events (e.g., other's moods), then children may be less likely to expect subsequent success: perhaps next time the combination of events that led to the positive outcome will not be in evidence.

The last dimension, controllability, refers to children's perceptions of their ability to impact on social outcomes. Very few researchers have addressed this aspect although it would appear to be very relevant to subsequent functioning. For example, if children feel that they lack control over events, they may be more likely to give up easily and to take a helpless/hopeless attitude. Moreover, they are likely to generalize these feelings to similar situations experienced subsequently.

Self-serving and non-self-serving biases. Researchers have identified a pattern of external (stable or unstable) attributions for negative events and internal (stable or unstable) attributions for success, often called a "self-serving bias". Children who take credit for their success, and see factors outside of themselves (e.g., others, bad luck) as the sources of their

failures exhibit this bias, which seems to be the "norm" for adults as well as children, and is thought to help preserve self-esteem (Miller & Ross, 1975).

However, there is also evidence for the existence of a "non-self serving" or "self-defeating" bias: self-blame for failures and external attributions for success, for those who are socially distressed (Anderson, Horowitz, & French, 1983; Sweeney, Anderson, & Bailey, 1986). For example, likeability has been reported to be negatively associated with the endorsement of external attributions for positive social outcomes (Ames et al., 1977). Goetz and Dweck (1980) found that children who attributed social rejection to internal, stable causes displayed greater disruption of goal-directed behaviour than children who attributed rejection to other types of causes did. This bias is likely to damage self-esteem, negatively impacting children's feelings of efficacy, and leading to greater social difficulties.

Research with children identified as aggressive. There has been a limited amount of research concerning the causal attributions for social situations of children identified as aggressive. However, researchers have not found these children to endorse more external attributions for social failure than their peers (Erdley, Pietrucha & Qualey, 1997; Guerra, Huesmann & Zelli, 1990; Quiggle et al., 1992; Zakriski & Coie, 1996). That is, children identified as aggressive do not seem to exhibit a self-defeating pattern of attributions for social outcomes.

Research with children identified as rejected by peers. Perhaps it is not surprising that sociometrically rejected children have been found to exhibit biases in their causal attributions. In fact, some researchers have indicated that rejected children view social success as outside of their control, as a result of external factors such as luck, or others' whim (Crick & Ladd, 1993; Earn & Sobol, 1990). These perceptions likely stem at least partly from children's prior experiences of peer rejection.

Toner and Munro (1996) examined the relation between social status and preadolescents' attributions of peer-social events and perceived control of outcomes. They reported that children who are rejected by peers were more likely to attribute acceptance to external factors and rejection to stable factors. In addition, these children displayed lower self-efficacy than non-rejected children.

Research with children identified as engaging in behaviours believed to reflect internalizing disorders. It is likely that children's causal attributions for outcome in social situations are related to their feelings of social distress in a bi-directional manner. Children who see their social failures as being due to internal-stable causes (e.g., ability) and their social successes being due to factors outside themselves (e.g., luck) likely experience greater levels of emotional distress. Moreover, children who feel little perceived control over social outcomes probably feel powerless to change these feelings of distress by making new friends.

Renshaw and Brown (1993) examined how indices of social functioning such as sociometric status, attributions, and behaviours would affect children's level of loneliness. They reported that even after the effects of age and gender were partialled out, loneliness was predicted by a combination of withdrawn behaviour, poor peer acceptance, few or no friendships, and an internal-stable attributional style for explaining social rejection. Moreover, increases in the endorsement of internal-stable attributions for rejection predicted increases in children's reported loneliness over one year. Thus, it would appear that children who engaged in withdrawn behaviours, and who felt like their social rejection was due to some stable characteristic of them, reported greater feelings of loneliness. These characteristics are likely to function in a cyclical fashion, leading to increased problems with social functioning and adjustment. In conclusion, loneliness and social dissatisfaction in

middle childhood appear to be relatively stable, having a pervasively negative impact on children's social functioning (Renshaw & Brown, 1993).

A pattern of self-defeating attributions for social success and failure has also been associated with depression (Butters, McClure, Siegert, & Ward, 1997; Rawson, 1992). Quiggle and colleagues (1992) reported children identified as depressed to be more likely than their non-depressed peers to attribute negative events to a combination of internal, stable and global causes. These beliefs likely lead to maladjusted behavioural responses and social behaviours. In fact, depression in children has been associated with helpless, blaming and self-blaming tendencies (Moyal, 1977), depressed and distorted responses to hypothetical situations (Haley et al., 1985), and deficits in self-monitoring, self-evaluation, and causal attributions (Kaslow et al., 1984).

It is likely that the self-systems of children who do not take credit for their success and blame themselves for failure are negatively affected. Bell and McCallum (1995) reported that children who displayed this pattern of attributions also reported poorer self-concept. Further, Goetz and Dweck (1980) found that children who attributed social failure to internal causes, such as their own social incompetence, were more likely to exhibit a "helpless" response pattern after initial failure on a social skills task. These findings suggest that self-defeating biases may have a pervasive and negative affect on children's subsequent processing.

Summary and limitations. Failure in social situations is an everyday encounter; as many as half of children's attempts at group entry will be rejected and ignored (Corsaro, 1981). These experiences of social failure may pose particular difficulties for some children, leading them to engage in problem behaviours that would negatively impact on their peer acceptance (e.g., aggression or withdrawal).

In general, it has been reported that children experiencing peer relationship problems do display patterns of attributions that differentiate them from their more well-liked agemates. Based on the review above, it appears that children who are identified as aggressive display self-serving biases while children rated as internalizing, and thus perhaps, withdrawn, exhibit a pattern of self-defeating attributions.

One problem observed in research on children's attributions for outcome in social situations has been that standardized assessment measures have not been developed to date. Further, there have been many different measures used across these studies, each with a different focus or degree of complexity, with respect to the perspective of Weiner (1986). Thus, researchers appear to employ differing operationalizations of the concept of causal attributions; some have focused on locus, where others have attempted a more comprehensive assessment including dimensions of control and stability.

Social Goals and Response Strategies¹

The third step of the SIP model is clarification of goals. Crick and Dodge (1994) define goals as "focused arousal states that function as orientations toward producing (or wanting to produce) particular outcomes." (p. 87). They believe that children probably have a particular goal state or orientation that leads them to display characteristic patterns of reaction. However, the stimuli associated with a particular situation may affect the choice of possible goals. For example, Crick and Dodge state that the sources of goal orientations could include such variables as feelings, temperamental characteristics, cultural or subcultural norms, and the media. Social goals play an important role in children's social functioning, affecting their behavioural responses in social situations. However, it is also possible that the

¹ These two aspects are discussed together because most research in the area has addressed these two variables simultaneously.

way children act also influences their social goals, and this process is likely mediated through variables such as feelings of self-efficacy.

Children's behavioural responses or strategies have been found to be highly associated with the kinds of social goals they endorse in particular situations (Chung & Asher, 1995, 1996; Delveax & Daniels, 2000; Erdley & Asher, 1996; Lochman et al., 1993; Slaby & Guerra, 1988). For example, Rose and Asher (1997) reported that children's goals in friendship conflict situations were related to their choice of strategies for dealing with conflict. Relationship goals were positively associated with accommodating and compromising strategies, and negatively with verbally aggressive, self-interest pursuit, leaving, and friendship termination strategies. Children's goals and strategies in conflict situations predicted their adjustment within the friendship, even after accounting for peer acceptance. Finally, children's choice of behavioural strategies has been associated with their behavioural patterns, both peer- and teacher-rated (e.g., Chung & Asher, 1996).

Deficit or bias? Traditionally, it was thought that children who experienced difficulties in their social interactions were displaying a deficit in their social knowledge. However, it is now widely accepted that children who display adjustment difficulties may not be exhibiting deficits in social problem-solving and strategy knowledge, but have difficulties because they choose maladaptive goals in social situations (e.g., Asher, Chung, & Hopmeyer, 1995). Thus, it is possible that children with adjustment problems have the social knowledge to determine prosocial and antisocial goals, but display biases in the types of strategies they enact in social situations. There has also been some suggestion that children with adjustment problems may have difficulty coordinating their social goals and difficulty meeting several

different goals simultaneously (Rabiner & Gordon, 1992). The multidimensional nature of social interactions in the real world necessitates the development of such skills.

Research with children identified as aggressive. Not surprisingly, children identified as aggressive have been found to endorse more aggressive and retaliatory goals and aggressive responses to hypothetical conflict situations than their non-aggressive peers (e.g., Asher et al., 1995; Boldizar, Perry, & Perry, 1989; Lochman et al., 1993; Ollendick & Schmidt, 1987).

Research with children identified as rejected by peers. There is some indication that children of differing social status endorse different goals and strategies. For example, well-liked children have been found to endorse relationship-enhancing and prosocial goals and strategies, while rejected children endorsed unfriendly and aggressive goals and strategies (e.g., Renshaw & Asher, 1983; Taylor and Asher, 1984). Further, Crick & Ladd (1990) reported rejected children to be less focused on relational (e.g., preserving a friendship) outcomes than non-rejected children.

Recently, Chung and Asher (1996) examined the association between children's goals and strategies for hypothetical conflict situations and how these processing events were related to acceptance by the peer group. Children from grades four through six participated, completing both assessments of peer acceptance and a measure of goals and strategies in response to conflict situations. Goals and strategies were found to be associated with each other in meaningful ways. Moreover, there was an association between strategies and peer acceptance (mediated by gender). That is, peer acceptance was negatively related to hostile/coercive strategies for females, and adult-seeking strategies for males. These findings, taken together, suggest that there are consistent and meaningful differences in the reported goals and strategies of children who differ in their peer status.

There has also been some research that has examined the social-cognitive patterns of children classified in terms of their behaviours as well as peer status. For example, Rabiner and Gordon (1991, in Lochman, Wayland, & White, 1993) studied fourth and fifth grade children identified through peer nominations of liking and behaviour. When presented with vignettes concerning cooperation and competitive peer interactions, aggressive-rejected males were reported to express few goals which would indicate concern for other's feelings and a higher proportion of goals which were self-focused, compared to non-rejected children.

Rabiner and Gordon (1992) examined rejected and non-rejected children's ability to coordinate individual and relational goals and resultant strategies in social interaction. They expected that children with problems of social adjustment would have difficulty, or be unable to manage goal conflicts and to integrate goals which are discrepant. For example, if personal and relational goals are in conflict (e.g., gaining something for the self, maintaining positive peer interaction), children who are rejected may have difficulty responding in a way that would make both goals possible. Although Rabiner and Gordon differentiated between aggressive- and submissive-rejected children, they hypothesized that there would be few differences between these groups: both of these groups of children were expected to have difficulty coordinating their goals. In addition, Rabiner and Gordon sought to determine how conditions under which children generated their responses (e.g., time to reflect versus spontaneous responses) would affect their processing. Specifically, they examined the role of automatic versus reflective situations on functioning.

The findings from this study indicated that rejected-aggressive and residual groups of males were less likely to endorse responses that integrated relational and individual goals; furthermore, these males focused on individual goals, even when the goals were explicit and

children had time to reflect on them. Rabiner and Gordon concluded that some rejected children fail to coordinate individual and relational goals because the relational goals are less important to them. However, even when they were provided with the goals explicitly they still had difficulties balancing them. Interestingly, submissive-rejected males were not found to be deficient in their ability to coordinate goals. Perhaps these children have the social knowledge to interact in these complex situations, though, their actual behaviour might be more accommodating (i.e., giving others what they want) for the sake of avoiding confrontation.

Research with children identified as engaging in behaviours believed to reflect internalizing disorders. Rubin and Krasnor (1986) have described the interpersonal problem-solving of young children rated as withdrawn, focusing on research using interview and observational data. They reported that behaviourally withdrawn children in kindergarten and grade 2 made different choices of problem-solving strategies in response to hypothetical social dilemmas; children suggested more adult dependent and non-assertive problem-solving strategies (Rubin, 1982; Rubin, 1985; Rubin, Daniels-Beirness & Bream, 1984). Observations of children identified as socially withdrawn indicated that they were more likely to have "low-cost" goals, such as seeking the attention of another, and less likely to use "high-cost" ones, such as attempting to gain access to an object. Although they attempted goals that required little effort and compliance from peers, they were less successful in attaining these goals. Moreover, these children made fewer requests of peers, as well as fewer direct (or assertive) requests.

Children identified as withdrawn were less sociable, less assertive, and less successful in their attempts to negotiate their social environment. Furthermore, their behaviours seemed to affect the social behaviour of their play partners: their peers pursued more costly

goals (such as attempting to obtain objects), used more direct strategies, and were more successful in attaining their social goals than their counterparts who interacted with non-withdrawn children. These findings indicate that in social interactions children with a withdrawn style may be "taken advantage of" by peers, who may realize that the withdrawn child will provide very little resistance.

Thus, Rubin and colleagues (Rubin, 1982; Rubin, 1985; Rubin et al., 1984) indicated that in early childhood (preschool and kindergarten), children identified as socially withdrawn display social behaviours that are less cognitively mature, and less assertive than their more sociable peers. However, teachers did not find these children to have social difficulties, and peers did not reject them. As children reach middle childhood though, they appear to develop more problematic behaviours, negative self-systems and poor peer relations (Rubin, Hymel, & Mills, 1989).

The children studied by Rubin and colleagues were much younger than those included in the present research. It is possible, and even likely, that older children may have different patterns of competencies and deficits than children just starting school. For example, playing alone in early childhood may have the same meaning as not providing answers to questions in class for children in grade 6. However, the non-assertive patterns of behaviour may be stable across different ages.

More recent research on children's goals and strategies has employed hypothetical social scenarios. Findings from these studies indicate that there is a link between children's reported strategies and the goals that they choose in social situations. Chung and Asher (1995) reported an association between children's peer-rated behavioural style and the goals and strategies they endorsed.

Erdley and colleagues (Erdley & Asher, 1996; Erdley et al., 1997) have also examined the social goals and strategies of children rated by peers as aggressive and withdrawn. Findings of this research suggested a link between children's social goals and their self-reported withdrawn behaviours: self-reported preference to withdraw from conflict situations was predicted by children's endorsement of withdrawn goals. However, they did not find an association between children's peer-rated withdrawal and their social goals. There are at least two possible reasons for these findings. To begin with, the assessment of peer-rated social withdrawal used by Erdley and Asher may have been inadequate. Second, there may not be a direct association between withdrawn behaviour and children's social goals, other variables such as feelings of self-efficacy for accomplishing goals or self-confidence may mediate the relationship between peer-rated behaviour and social goals.

Summary and limitations. There has been much support for the existence of an association between children's social goals and their social adjustment. Positive social adjustment (usually defined as peer popularity or prosocial behaviour) is related to the formulation of social goals that are relationship enhancing, where social maladjustment is related to relationship damaging goals (e.g., retaliation; Crick & Dodge, 1989; Renshaw & Asher, 1983; Slaby & Guerra, 1988; Taylor & Asher, 1984).

Findings from the research reviewed above suggested that both peer rejection as well as aggressiveness were related to the formulation of goals directed at gaining something for the self rather than goals directed at maintaining or developing peer relations. Furthermore, these findings suggest that children who are less well-liked by peers may have the knowledge of what goals are more socially acceptable, but they may not generate these spontaneously in hypothetical or real-life situations. It is also possible that the hostile attribution biases that these children may exhibit lead them to choose particular goals in social situations. These

findings would have particular relevance to the development of intervention programs: children may not need to be taught "what to do" as much as they need instruction on exploring all possible response options before (re)acting.

Erdley and colleagues (1997; Erdley & Asher, 1996) found no direct link between children's social goals and strategies and their peer-rated withdrawal. However, it is possible that the assessment of peer-rated withdrawal used in this research was inadequate. In fact, close scrutiny of the measure used by Erdley et al. revealed that their assessment of social withdrawal was not comprehensive: they included only four items, and no psychometric properties for the peer-rating measure were presented. To examine the association between children's behavioural style and their goals and strategies, in addition to other measures of social cognition, a comprehensive assessment of withdrawal must be undertaken.

Self-Efficacy Evaluations

The concept of self-efficacy was introduced by Bandura (1977) who defined it as the "degree to which individuals believe that they can successfully perform behaviours that are necessary for achieving desired outcomes" (Crick & Dodge, 1994, p. 90). Crick and Dodge state that children must feel that they can produce behaviour in order to decide to enact it. As a result, self-efficacy is a criterion important to response evaluation. Wheeler and Ladd (1982) hypothesized a relation between self-efficacy and social adjustment. They believed that children who experienced social problems might not behave competently in social situations because they lacked a feeling of efficacy concerning their behavioural performance.

Research with children identified as aggressive. There is support for the existence of an association between social maladjustment and children's reported confidence for engaging in inappropriate behaviours, predominantly aggression. Researchers have reported

that for general social skills behaviours, children identified as aggressive and non-aggressive indicate similar levels of self-efficacy (Ollendick, Crowe, & Oswald, 1986). However, for beliefs about aggression, differences have been evident: children identified as aggressive report more confidence in their ability to perform aggressive (physical and verbal) behaviours than non-aggressive peers (Crick & Dodge, 1989; Cuddy & Frame, 1991; Perry et al., 1986; Quiggle et al., 1992; Slaby & Guerra, 1988). Further, Crick and Dodge (1994) have suggested that these findings may be particularly true of those who engage in instrumental or proactive aggression. There has also been some suggestion that children identified as aggressive feel less confident in their ability to walk away from provocation (Crick & Dodge, 1989).

Research with children identified as rejected by peers. To date, there has been no research examining peer-rejected children's reported self-efficacy for behavioural responses. This is not surprising, there has been little research on self-efficacy for behavioural responses in general.

Research with children identified as engaging in behaviours believed to reflect internalizing disorders. When people are socially anxious, they will tend to disaffiliate, speak less frequently, initiate fewer interactions, disclose less, withdraw, and avoid social interaction (Beidel & Turner, 1999). There are many possible reasons and explanations for why people engage in anxious inhibition and avoidance (from self-consciousness to poor emotion regulation; see Schmidt & Schulkin, 1999). One interesting perspective has been suggested by self-efficacy theory (e.g., Leary, 1983). Based on this perspective, how an individual construes efficacy is affected by beliefs about his or her ability to master certain tasks. These expectations are thought to play a large role in determining an individual's choice of activities, their commitment to situations, and their persistence.

When processing in the response decision step is examined, particularly in the assessment of efficacy for action, children identified as depressed have been reported to endorse poorer expectations for their performance on a task (McGee, Anderson, Williams, & Silva, 1986). In addition, they more often viewed situations as out of their control (Kaslow et al., 1988) than non-depressed children did. These children also displayed a bias towards seeing the future as hopeless, and perceived themselves as lacking in ability (Kazdin et al., 1983; Kazdin, Rodgers, & Colbus, 1986).

Based on the research reviewed in the previous sections, it would appear that children identified as depressed, as a whole, display a bias that leads them to attend to negative cues and to interpret negative events as being beyond their control. Their response generation, although not lacking in effective information, also includes irrelevant means of solving problems, and when choosing a response, they are affected by feelings of low self-efficacy for success, and hopelessness concerning the future and their ability to make things better. This trajectory may also apply to children identified as withdrawn who also display depressive symptomology.

Erdley and Asher (1996) examined the self-efficacy perceptions of children who reported a preference for withdrawn responses to conflict situations. They found that withdrawn and prosocial responders were very similar in their self-efficacy perceptions: they reported that they would be skilled at accomplishing prosocial goals and less able to achieve antisocial goals. These findings suggest that children identified as withdrawn may feel less able to accomplish aggressive and retaliatory goals, even if they attribute hostile intent to others. However, caution should be taken when these findings are interpreted with respect to peer-rated socially withdrawn children, particularly since Erdley and Asher reported no

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children feel confident in their ability to engage in aggressive responses, and believe that these behaviours will provide rewards.

The research concerning the association between social withdrawal and social cognitions, however, is sketchy at best. Based on the literature regarding related constructs (i.e., behaviours believed to reflect internalizing disorders) predictions about the social cognitions of withdrawn children are possible. These hypotheses are outlined in the following sections.

Intent Attributions

Due to the characteristic nature of social withdrawal (e.g., social avoidance and withdrawal from interaction) and information concerning the internal working models of these children, one might expect that they would see the world as a scary, unpredictable place. However, those children rejected by peers, and who also exhibit withdrawal, may have a predisposition toward perceiving hostility by others. As a result, children identified as withdrawn may be more likely to attribute hostility to peers in provocation situations in which the intent of others is ambiguous. In this regard, both aggressive and withdrawn children were hypothesized to have similar intent biases.

Assessing intent attributions. Typically, researchers have assessed intent attributions through the provision of hypothetical provocation or conflict scenarios in which the intent of the provocateur is unclear (e.g., Crick, 1995; Quiggle et al., 1992; Waas, 1988). Children are then asked about the intent of the other (e.g., whether they were trying to be mean). This simple paradigm has been used countless times in research with children and adolescents.

As part of a measure to assess social goals, strategies, self-efficacy and hostile attributions, Erdley and Asher (1996) developed the measure of intent attributions used in the present study. This measure was selected for several reasons. First, the measure has been

used in previous research identifying children as withdrawn and aggressive responders. Thus the behavioural strategies provided were more geared toward withdrawal than other measures (e.g., two withdrawn strategies are presented to children). Second, with regards to the validity of this measure, Erdley and Asher (1996) reported that children who indicated that they would engage in different types of behavioural responses (e.g., withdrawn versus aggressive or prosocial) endorsed differing social goals and different levels of perceived self-efficacy for social responses.

Causal Attributions

Children identified as withdrawn display patterns of social interaction and response that include social avoidance and withdrawal from situations. It would be reasonable to expect that these children may take a more "self-defeating" or "helpless" view of the cause of their social successes and failures. For social failure responses, children who blame themselves for a lack of ability (internal-stable) are more likely to withdraw from a social interaction; those who do not internalize failures are more persistent in their social efforts (Goetz & Dweck, 1980; Erdley et al., 1997). Children who exhibit internal-stable attributions for failure and who withdraw are likely to be less well-accepted by peers. In contrast, those who externalize attributions for failure, or who increase their subsequent efforts, are more likely to be accepted by peers (Fincham, Diener, & Hokoda, 1987; Sobol & Earn, 1985).

There are also a number of factors that suggest that children who engage in shy, withdrawn behaviours, feel less in control of their success in social environments. To begin with, children identified as withdrawn have been reported to be more often ignored when they tried to get the attention of others (e.g., Rubin, 1982; Rubin, 1985; Rubin et al., 1984). Thus, when they are successful in their social interactions they may attribute it to chance or luck. Children identified as withdrawn may also be expected to blame themselves (internal

attributions) for social failures, believing that they lack the abilities to function in social situations. These attributions would lead to lower self-concept. This effect is likely bi-directional: children's feelings about themselves would affect their attributions. These attributions also impact on children's feelings of self-efficacy in social situations, and indirectly on social goals and strategies.

Locus and stability. For children who engage in behaviors reflecting social withdrawal, the locus dimension may also reflect some of their passivity. Further, these children may be particularly attuned to their social failures. In fact, children identified as withdrawn may come to expect that their social failures are due to something inside themselves that cannot be changed (internal-stable). Moreover, although all children will experience social failure of some sort, these children may "take it to heart" more than other children. The increased salience of social failures to children who are identified as socially withdrawn, in addition to attributions of self-blame, would only serve to increase the likelihood that these children will further withdraw from social interactions, and increasingly engage in withdrawn responses (e.g., social avoidance and withdrawal) in social situations. Moreover, children identified as withdrawn may not take credit for their social successes. In fact, they may see success as due to the whim of others, unstable, and not to be counted upon in the future. An internal-stable attribution for social failure and an external-unstable attribution for success would likely lead to higher levels of withdrawal and feelings of distress (e.g., loneliness, depression, anxiety), and lower levels of perceived control over their social environment.

Controllability. Children who do not perceive themselves to have control over their social environments may give up more easily, and react with increasing withdrawal or avoidance in social situations. In research with adults, Bruch and Pearl (1995) reported that

the most important attributional factor associated with shyness was the respondents' perceived lack of controllability over events when interacting socially. For those persons who may exhibit behaviours believed to reflect internalizing disorders, such as depression, there may exist a belief that others will not like them, and subsequently reject them. These feelings often result in social anxiety. Moreover, these children may also feel that they have very little control over the outcome of social situations. Although this aspect is related to the dimension of stability, it is much more closely related to the concept of "learned helplessness". Children who feel that they have no control over events are not likely to attempt to change their situation, even though they are distressed. This distress may translate into social avoidance and withdrawal.

As such, peer-identified withdrawn children are expected to display internal, stable attributions for failure and external unstable attributions for social successes. It is also hypothesized that these children will report perceptions of a lack of control over their social environments.

Assessing causal attributions. Children's causal attributions for social situations have typically been assessed through the use of hypothetical situations (Ames et al., 1977; Bell & McCallum, 1995; Crick & Ladd, 1993; Earn & Sobol, 1990; Goetz & Dweck, 1980; Panak & Garber, 1992; Renshaw & Brown, 1993). However, many of these instruments have inherent drawbacks. For example, children have been provided with a limited range of attributional choices (Ames et al., 1977; Bell & McCallum, 1995; Crick & Ladd, 1993; Goetz & Dweck, 1980; Panak & Garber, 1992; Renshaw & Brown, 1993) or the dimensions of causality and stability were confounded within the assessment measure (Ames et al., 1977; Crick & Ladd, 1993; Goetz & Dweck, 1980).

A second drawback of prior studies has been the inclusion of only a small number of scenarios, or the examination of attributions for only success or failure situations. Such limitations do not allow for the assessment of patterns of explanation (Goetz & Dweck, 1980). For example, Erdley et al., (1997) provided only four social failure situations; there was no assessment of attributions for social successes.

Due to the drawbacks associated with existing measures, a new instrument to assess causal attributions was developed for the present study. This measure was based upon two existing instruments. The first, was that of Toner and Munro (1996) who developed an assessment of causal attributions designed to account for the drawbacks of previous measures. This measure was developed with a sample of children from grade 6, and consisted of 12 scenarios depicting social acceptance or rejection. For each situation, children were asked to rate the reason for the occurrence of the event (causal internality and causal stability), their perceived control over the outcome, and finally, to provide a general attribution of why the event occurred. From this assessment, five variables were created: 1) casual externality of acceptance (frequency of acceptances attributed to external choice); 2) causal internality of rejection (frequency of rejections attributed to internal choice); 3) causal instability of acceptance (frequency of acceptances attributed to the unstable choice); 4) causal stability of rejection (frequency of rejections attributed to the stable or mostly stable choice); and 5) perceived controllability of the outcome (frequency of choice of either control option).

The internal consistency was low to moderate, coefficient alphas ranged from .26 (for causal internality of rejection) to .65 (for causal externality of acceptance). There was evidence for discriminant validity for some of the scales: rejected children were found to display some maladaptive explanatory patterns. There were however, some drawbacks to this

Table 1.

Example of a Question from the Measure of Causal Attributions Developed by Toner and Munro (1996)

Internality Question: "Is the reason they ignored what you said because of something about you, or is it because of some other reason, or is it because of something about you and some other reason?"

measure which included: 1) the measure was designed to be administered in an interview format, not in the regular classroom; 2) the questions were unclear and hard to decipher; and 3) there was low internal consistency and little evidence of validity for the assessment of internal attributions for social rejection. For the purpose of this study, a measure was needed that could be group administered in the classroom, and included questions that could be easily understood.

The causal attribution measure of Erdley et al., (1997) also served to inform the development of the present measure. The newly developed social failure scenarios were patterned after those of Erdley et al., (1997) who reported that internal attributions for failure predicted withdrawn behaviour and external attributions for failure predicted peer- and self-rated aggression of children from grades four to six. However, it is important to determine how children interpret their successes as well as failures. Thus, assessment of attributions for social failure situations alone does not provide a complete picture of self-defeating biases that children may exhibit. As such, the measure developed for the present study included four social success and four social failure situations.

Social Goals and Strategies

Based on the reported association and theoretical links between self-concept, wariness and self-consciousness, and withdrawal (Crozier, 1999), one might expect that children identified as withdrawn would wish to pursue non-assertive goals and strategies such as "avoiding trouble" and "not drawing the attention of others to themselves". Alternatively, the existence of approach-avoidance motivations, thought to be an underlying cause of shyness and withdrawal, might also impact on the processing of children identified as withdrawn. These children may be interested in engaging in prosocial and competence interactions with peers, but are too anxious to interact in such a manner. As such, it may be

expected that relationship and prosocial goals, rather than goals of revenge may be associated with the exhibition of withdrawal. However, the response strategies of children identified as withdrawn may not match their stated goals; they may choose avoidant and less assertive strategies to meet their stated goals.

Assessment of social goals and strategies. Children's social strategies have typically been assessed through conflict-based hypothetical situations: children are presented with a vignette, and asked what they would do in response to the conflict/provocation. Hypothetical situations have been found to be reliable, as well as a time- and cost-efficient method of assessing children's goals (e.g., Chung & Asher, 1995, 1996; Rose & Asher, 1997). Some researchers have used individual interview formats (e.g., Erdley & Asher, 1996), while others have used a group administered procedure (e.g., Chung & Asher, 1995, 1996; Rose & Asher, 1997). In some studies children are asked to generate goals and strategies (e.g., Rabiner & Gordon, 1992). However, in others children are asked to choose from a list (e.g., Chung & Asher, 1996; Lochman et al., 1993), or rate several options (e.g., Chung & Asher, 1995; Erdley & Asher, 1996; Rose & Asher, 1997). Finally, some researchers have asked children to rate different goals (e.g., Chung & Asher, 1995). The rationale behind this methodology is that the provision of several response options for children to rate results in higher reliability than spontaneous production or allowing the selection of only one goal or strategy (Chung & Asher, 1996; Rabiner & Gordon, 1992). In fact, many of the newest assessment instruments have utilized this methodology (e.g., Chung & Asher, 1995; Erdley & Asher, 1996; Rose & Asher, 1997).

In general, the types of goals and strategies assessed in these studies included: positive outgoing, positive accommodating, rule-oriented, avoidance, and hostile (revenge and threatening predominant). As mentioned previously (regarding intent attributions), the

measure of intent attributions and social strategies used in the present study was developed by Erdley and Asher (1996) as part of a measure to assess social goals, strategies, hostile attributions, and perceived self-efficacy.

Self-Efficacy

Self-efficacy is linked to children's self-perceptions and their perceived ability to negotiate social interactions. Children identified as withdrawn have poorer self-perceptions than their non-withdrawn peers, thus it is likely that they will also endorse lower levels of self-efficacy for attaining social goals in conflict situations. Their resultant behaviours in social situations (e.g., avoidance) are certainly consistent with these perceptions of efficacy. As a result, it was expected that peer-identified withdrawn children would report lower levels of self-efficacy for engaging in aggressive and prosocial behaviours than aggressive children.

Assessing self-efficacy. Assessments of self-efficacy have traditionally involved self-report paper and pencil measures (e.g., Cuddy & Frame, 1991; Wheeler & Ladd, 1982). In such cases, children have been queried concerning their perceived ability to engage in different types of behaviours (e.g., "How hard would it be for you to get back at the other girl?"). More recently, assessments of children's perceived self-efficacy have been incorporated into measures of social goals and strategies, utilizing hypothetical situations (Erdley & Asher, 1996). In these assessments, children are read conflict/provocation scenarios, queried about their goals for the situation, and then asked how difficult it would be to (or how confident they are that they could) attain different social goals in that situation. Linking children's feelings of self-efficacy for attaining particular goals to their choices of goals and strategies in the same situations provides an opportunity for examining multivariate associations between aspects of social cognition.

Erdley and Asher (1996) originally used the measure selected for use in the present study. This measure was administered in two parts (the first was described in the section on intent and social strategies). The second part of the measure included the same 10 hypothetical conflict scenarios. However, children were asked to:

- 1) Rate eight social goals on a five-point scale (really agree to really disagree). For example, "I would be trying to get back at the other kid".
- 2) Rate eight self-efficacy attributions on a five-point scale (really agree to really disagree). For example, "I would be good at getting back at the other kid if I tried".

Age and Gender Differences in Cognitions

Across the five aspects of social information processing included in the present study, some gender and age effects have been reported. Due to the fact that the sample included in the present research included males and females from grades 4 to 6 these findings are briefly summarized. It should be noted however, that in the present research the potential effects of age and gender were only attended to insofar as they interacted with group membership.

Briefly, there have been reports of gender differences in children's processing and social cognitions. Mixed reports of gender differences for causal attributions have been cited; some researchers report no differences (Ladd, Welsh, Vitulli, Labbé, & Law, 1997; Renshaw & Brown, 1993), whereas others report females to display more self-defeating biases and males to endorse self-serving attributions for social outcomes (Burgner & Hewstone, 1993). Females have also been reported to endorse more relationship enhancing and prosocial goals and strategies than males (Chung & Asher, 1996; Rose & Asher, 1997). There have not been any indications, to date of a gender effect for self-efficacy attributions. However, due to reported differences in children's level of self-perceptions in general, it may be expected that

males would endorse higher perceived efficacy for attaining their social goals, particularly for aggressive goals.

Age differences have also been reported: generally along developmentally intuitive lines. For example, older children are more likely to attribution causality to internal causes (Adalbjarnardottir, 1995). Further, Waas (1991) reported that children in higher grades were more likely to use social cues from others when interpreting a social situation. Finally, there is also some indication that older children endorse more prosocial goals than their younger counterparts.

The Present Research

The findings and limitations of the research discussed above have suggested two important considerations for the study of the social cognitions of children identified as withdrawn. To begin with, it was necessary to reliably identify a group of socially withdrawn children. For example, the peer rated measure used by Erdley and Asher (1996) did not have established psychometric properties; thus, the lack of association between children's self-reported withdrawn responses and ratings of social withdrawal by peers may be an artifact of the methodology. Second, the availability of a well-established model of social information processing, and the testable steps within the model necessitated a movement of the study of the social cognitions of children identified as withdrawn onto a more theoretical plane.

Summary of the hypotheses. When attributions of intent for ambiguous situations were assessed, it was expected that peer-identified withdrawn children would:

1. display biases of hostile intent similar to peer-identified aggressive children (higher than comparison children);

2. exhibit more internal-stable attributions for social failure, more external-unstable attributions for success than peer-identified aggressive or comparison children, and to report feeling less control over their social situations;
3. endorse fewer aggressive goals and strategies than peer-identified aggressive children; and
4. feel less efficacious for their ability to attain aggressive goals than peer-identified aggressive children.

Method

Overview

Data collection began in January and ended in February 1999. Each administration included two sessions separated by a 15 to 20 minute break. At each session, a selection of self- and peer-report measures was administered to children. These included: 1) a peer-rated behavioural nomination measure; 2) a measure of hostile intent biases and social responses to ambiguous situations; 3) a measure of social goals and self-efficacy; and 4) a newly developed measure of causal attributions.

Participants

The participants included 457 children from grade four, five, and six. These children were recruited from nine schools in the Upper Canada School Board, from areas within and outside of the Ottawa-Carleton Area.² No demographic variables were collected, however, the schools sampled catered to children from a broad range of socioeconomic backgrounds

² The rate of participation was very high, with an average consent rate of over 80% and a participation rate of approximately 78%. Dropouts were due mostly to school absence, and a concerted effort was made to return to the schools to collect information for those children.

(e.g., rural and urban schools). Three of the schools were located in urban, and six were located in rural areas. However, even the urban schools were located in small cities.

This sample was comprised of 34% ($n=155$) grade 4, 30% ($n=132$) grade 5 and 36% ($n=170$) grade 6 children. These children (54% females ($n=247$) and 46% males ($n=210$)) ranged in age from 9 to 13 years of age ($M_{age}=10.6$, $SD=.93$). There were no significant between group differences for the males and females based on their age or grade level ($F(1,155)=.01$, n.s.).

Procedures

Selection procedures. After permission to conduct this study was granted by the school board and the principal of each school, the primary researcher met with the junior-level teachers to provide information about the study. At this time packages were given to each teacher. These packages included: (1) information letters and permission forms for parents (Appendix A); (2) instruction sheets for the teachers; and (3) flyers reminding the children to return their permission forms. In order to maximize children's return of the forms (with or without consent to participate), an incentive program was implemented. Specifically, children were told that classrooms with the highest return rates would go into a draw for a pizza party for the class. At the end of the study six pizza parties were awarded.

Data collection. Depending on the size of the school and research assistant availability there were between 5 and 10 trained assistants assisting with data collection. At the beginning of the session the researchers discussed, with the children, the concept of confidentiality and the importance of not discussing this project with anyone but teachers or parents. Prior to the administration of each questionnaire, detailed instructions were read out to the children and any questions were answered. Then the questionnaires were read out as the children followed along.

At the beginning of session one, children filled out a short information form detailing their name, school and age (see Appendix B for the session one information form and measures and Appendix C for session two measures). To decrease the salience of the behavioural nominations, the peer nomination assessment was the first measure administered. Children were then asked to complete an assessment of hostile attributions and social response strategies. They were given a recess break at the end of session one and before the beginning of session two. Additionally, younger children were given a 'stretching break' during the first and second sessions. Measures administered in this second session, included assessments of social goals, perceived self-efficacy, and causal attributions.

Debriefing. At the end of each session, children were reminded that their answers were confidential, and that they should not discuss their responses with classmates (see Appendix D for verbal and written debriefing). The children were invited to ask questions of the research assistants, and told that if they had any additional questions about the study they should talk to their parents or teachers about them. Finally, a debriefing letter was distributed for the children to take home and read with their parents.

The Measures

Revised Class Play (RCP). Consistent with the standard administration, the RCP was presented as a pretend exercise in which children were the directors of a class play. Children were presented with thirty "roles" (e.g., "Someone who is shy") and asked to nominate classmates who would fit each description (see Appendix B). There was no limitation placed on the number of nominations children made for each item, although children could not choose themselves. The number of votes children received from their classmates was tallied for each item. A principal components factor analysis with Varimax rotation was run with all RCP items. Three factors were forced, in an attempt to replicate the structure of the original

scale. This procedure resulted in the same factor structure as reported in previous research (see Table 2). Factor scores were created by tallying the number of votes received by each child for each item: higher scores indicated more peer nominations. The factor scores were then standardized (through use of z-scores) within classrooms.

As previously discussed, some researchers have discussed the theoretical existences of two separate constructs underlying the sensitive-isolated factor (active-isolation and passive-solitude). In the present study, this structure was not replicated. However, due to the importance of identifying a passively withdrawn group of children in the present study, active-isolation items were removed from the sensitive-isolated factor used for further analyses as per the procedure reported by Rubin and Mills (1988).

Cronbach's alpha coefficients for the factors were acceptable: $\alpha=.92$ for aggressive-disruptive (7 items); $\alpha=.76$ for passive-solitude (4 items)³; and $\alpha=.94$ for the sociable-leader factor (15 items). Factor scores were significantly negatively associated with each other (see Table 3).

An extreme-groups procedure was used to identify three groups of children based on two of the factors created from the RCP: (1) passive-solitary ($n=50$)⁴ and (2) aggressive-disruptive ($n=53$). To be identified as a member of the target group, children had to be above one standard deviation on the target factor and below the mean on the other factor. For example, children in the withdrawn group scored above one standard deviation on the passive-solitary factor and below the mean on the aggressive-disruptive factor.

For the present study a non-aggressive, non-withdrawn comparison group was selected. In previous research, aggressive children have been compared to non-aggressive

³ Alpha coefficient for original Sensitive-Isolated factor (7 items) was $\alpha=.89$.

Table 2.

Factor Structure for the Revised Class Play (n=457)

<i>Factor 1: Sociable-Leader</i>	<i>Factor 2: Aggressive-Disruptive</i>	<i>Factor 3: Sensitive-Isolated</i>
1. Good Leader	2. Gets Into Lots of Fights	3. Rather Play Alone
4. Good Ideas for Things to Do	5. Loses Their Temper Easily	11. Feelings Hurt Easily
7. Can Trust	6. Shows Off A Lot	14. Trouble Making Friends ^a
9. Many Friends	8. Interrupts Others	17. Can't Get Others to Listen ^a
10. Wait Their Turn	15. Acts like Little Kid ⁵	18. Shy
12. Everyone listens to	21. Too Bossy	22. Often Left Out ^a
13. Plays fair	27. Teases Others	24. Usually Sad
16. Good Sense of Humour	29. Picks on Others	
19. Polite		
20. Makes New Friends Easily		
23. Helps Others		
25. Everyone Likes to Be With		
26. Gets Things Done		
28. Usually Happy		
30. Likes to Play with Others		

^a denotes active-isolation items

⁴ Hereafter this group is called withdrawn.

⁵ Note: When factors are created, item 15 has traditionally been excluded from the aggressive-disruptive factor. This procedure was followed in the present study.

Table 3.

Intercorrelations Between Factors of the Revised Class Play

<i>Factor</i> <i>(n=457)</i>	<i>Aggressive-</i> <i>Disruptive</i>	<i>Sociable-Leader</i>	<i>Passive-</i> <i>Withdrawal</i>
Aggressive-Disruptive	--	-.16	-.14
Sociable-Leader		--	-.23
Passive-Withdrawal			--

Note: all correlation coefficients were significant at $p < .01$.

children and withdrawn children to their non-withdrawn peers. Because both groups of children were included in the present study, children who scored below the mean on aggression and withdrawal were selected ($n=206$) for the comparison group.

Intent attributions and social strategies. Children were presented with 10 ambiguous provocation vignettes (plus one practice story) describing a hypothetical conflict with a same-gender peer (Erdley & Asher, 1996; see Appendix B for the measure). For each scenario they were asked to: 1) make a determination of whether or not the other child meant to cause harm; 2) rate whether they would engage in seven strategies on a three-point scale (yes, maybe, no); and 3) circle their most likely response to each scenario.

Children's score for hostile attributions was composed of the proportion of times they endorsed a hostile attribution (e.g., the other child was being mean). Across all scenarios, children perceived a hostile intent to be present in an average of four-and-a-half situations ($M=4.51$, $SD=3.09$). Over the 10 scenarios, ratings of intent yielded a high alpha coefficient ($\alpha=.81$).

Children rated seven strategies including a physically aggressive response (e.g., physical retaliation), a verbally aggressive response (e.g., name calling), a passive reaction (e.g., ignoring), an avoidant reaction (e.g., leaving the situation), a problem-solving behaviour (cleaning up), and an attempt to clarify why the situation occurred (e.g., ask how it happened). The seventh response option was added for all scenarios: adult-orientation. Following the procedure of Erdley and Asher (1996), the responses were combined to create three factors (aggressive, prosocial, and withdrawn) plus the adult-oriented factor (see Table

4).⁶ The internal consistency for the four factors over 10 scenarios ranged from $\alpha=.80$ to $\alpha=.96$.

Social goals and self-efficacy. In the second session children were presented with the same 10 scenarios as in Session one, but queried on their goals and self-efficacy for engaging in those goals (Appendix C). Children's scores on eight goals and self-efficacy beliefs were calculated as the mean rating of that item across all scenarios. The eight items were the same for both social goals and self-efficacy attributions, and included: Impression Management ("not look like a wimp"); Avoidance ("stay away from the other kid"); Retaliation; Making the Other Feel Bad; Protecting the Self; Dealing with the Problem ("clean it up"); Maintaining the Relationship; and Seeking a Peaceful Solution.

Causal attributions. The measure of causal attributions administered to children was developed for use in the present study (see Appendix C). Children were presented with eight hypothetical social interactions with one or more peers; half depicted a social success and half a social failure. The scenarios were presented in alternating order (success followed by failure). For each situation, children were asked to respond to several questions. To begin with, children rated, on a four-point frequency scale, how often the situation has occurred to them (familiarity). Second, children were to rate the applicability of seven locus and stability attributions on a five-point scale. The seven attributions represented a combination of locus (internal, mutual and external) and stability (stable, unstable) attributions. One additional

⁶ Because the adult-oriented items were an addition to the measure, they were kept separate from the factors determined by Erdley and Asher.

Table 4.
Breakdown of Response Strategy Factors⁷

<i>Factors Created</i>	<i>Response Strategy Presented</i>
Aggressive Strategies	<ul style="list-style-type: none"> • a physically aggressive response (e.g., physical retaliation) • a verbally aggressive response (e.g., name calling)
Prosocial Strategies	<ul style="list-style-type: none"> • an attempt to clarify why the situation occurred (e.g., ask how it happened). • a problem-solving behaviour (cleaning up)
Withdrawn Strategies	<ul style="list-style-type: none"> • a passive reaction (e.g., ignoring) • an avoidant reaction (e.g., leaving the situation)
Adult-Oriented Strategy	<ul style="list-style-type: none"> • an adult-oriented response

⁷ Replication of factors created by Erdley and Asher (1996).

attribution (internal stable) was provided with each scenario.⁸ Third, children rated, on a three-point scale, their perceptions of control over the situation.

Summary scores were created across the success and failure scenarios separately. The familiarity score was a sum of the ratings for this question, across each scenario. The locus and stability attributions were collapsed to create two factors: self-defeating bias and self-serving bias. Self-defeating bias was computed by combining internal stable attributions for failure and external unstable attributions for success. Self-serving bias was computed by combining children's ratings for external attributions for failure and internal attributions for success. The perceived control score was computed as children's ratings of control for success and failure situations separately.

Cronbach's alpha was computed for the six factors: the coefficients were moderate to high for each factor across the eight scenarios ($\alpha=.68$ to $\alpha=.84$). Descriptives for the factor scores are presented in Table 5. There were no floor or ceiling effects for any of the factors.

Results

Verification of Extreme Groups

To confirm the nature of the extreme groups created, a MANOVA was run between group membership and the three continuous scores yielded by the RCP (sociable-leader, aggressive-disruptive, and passive-withdrawal). This analysis was significant ($F(6,610)=619.01, p<.001$), and follow-up ANOVAs revealed group differences across all

⁸ Because the two internal stable options originally provided by Erdley et al., had construct validity and addressed different aspects of internality (e.g., ability to make friends versus personal worth) they were maintained in the present instrument.

Table 5.

Descriptives and Cronbach's Alpha Coefficients for the Factors

<i>Causal Attribution Factor</i>	<i>Alpha</i>	<i>Mean (SD)</i>
Familiarity with Social Success	.74	2.88 (.74)
Familiarity with Social Failure	.76	1.73 (.65)
Control Over Social Success	.68	.68 (.46)
Control Over Social Failure	.69	.61 (.43)
Self-Defeating Attributions ^a	.84	.60 (.39)
Self-Serving Attributions ^a	.82	1.11 (.33)

^a Four items represented responses over the eight situations for the biases.

three factors ($F(2,306)=849.01, p < .001$, $F(2,306)=17.00, p < .001$, and $F(2,306)=1209.27, p < .001$) respectively (see Table 6 for Group means). Follow-up multiple comparisons (Least Significant Difference (LSD)) revealed that peer-identified withdrawn children scored higher on the passive-withdrawn factor than peer-identified aggressive ($M_{diff}=2.72, p < .001$) or comparison children ($M_{diff}=2.18, p < .001$; Table 6). Children in the aggressive group scored higher on the aggressive-disruptive factor than those in the withdrawn ($M_{diff}=2.49, p < .001$) or comparison groups ($M_{diff}=2.21, p < .001$). The comparison children were rated as higher on the sociable-leader factor than peer-identified withdrawn ($M_{diff}=.64, p < .001$) but not aggressive children ($M_{diff}=.21, n.s.$).

To explore possible effects of grade, gender, and school on children's group membership (withdrawn, aggressive, and comparison), a one-way ANOVA between grade and group membership and a chi-square analysis for gender and group were completed. There were no between-group differences for grade ($F(2,306)=.57, n.s.$). Children rated as withdrawn, aggressive or as comparisons did not differ in grade level. A significant chi-square analysis ($\chi^2(3, n=309)=37.72, p < .001$) indicated some differences between groups for gender. Examination of the standardized residuals revealed that the differences were due to a higher percentage of males (84.9%) and a lower percentage of females (15.1%) in the aggressive group.

Gender and Grade Differences in Social Cognitions

To determine the role that grade level and gender would play in further analyses, a series of ANOVAs were computed for the dependent variables (intent and causal attributions, social goals and responses, and self-efficacy; see Table 7 and 8 for variable descriptives for gender and grade). Results from a 2 x 3 ANOVA revealed significant main effects for gender ($F(1,451)= 44.74, p < .001$) and grade ($F(2,451)= 3.27, p < .05$) for hostile

Table 6.

Descriptives for the RCP Factor Scores by Group

<i>RCP Factor Score</i>	<i>Withdrawn (<i>n</i>=50)</i>	<i>Aggressive-Disruptive (<i>n</i>=53)</i>	<i>Comparison (<i>n</i>=206)</i>
Passive-Withdrawn	2.01 (.76)	-.63 (.31)	-.48 (.27)
Aggressive-Disruptive	-.51 (.23)	2.09 (.69)	-.50 (.22)
Sociable-Leader	-.50 (.69)	-.27 (.77)	.23 (.95)

Table 7.

Descriptives for Social Information Processing Components by Gender

<i>Factor</i>	<i>Females</i> (<i>n</i> =247)	<i>Males</i> (<i>n</i> =210)
<i>Hostile Attributions</i> ¹	3.67 (2.90)^a	5.53 (3.02)^b
<i>Causal Attributions</i>		
Frequency of Failure ²	1.67(.66)	1.82(.65)
Frequency of Success ²	2.86(.76)	2.87(.75)
Control Over Failure ³	.64(.41)	.59(.45)
Control Over Success ³	.70(.46)	.65(.45)
Self-Defeating Attributions ³	.59(.40)	.61(.38)
Self-Serving Attributions ³	1.12(.29)	1.08(.35)
<i>Social Goals</i> ⁴		
Impression Management	3.13(1.33)^a	3.57(1.27)^b
Avoidant	2.68(1.12)	2.74(1.08)
Make other feel bad	2.02(1.05)^a	2.64(1.33)^b
Seeking a peaceful solution	3.85(1.06)^a	1.14(1.31)^b
Deal with the problem	4.18(.73)	4.06(.80)
Protecting the self	3.62(1.08)^a	3.96(.95)^b
Relationship Maintenance	3.55(1.10)^a	2.82(1.18)^b
Retaliation	2.13(1.12)^a	2.75(1.35)^b

Table 7. continued.

<i>Factor</i>	<i>Females</i> (<i>n</i> =247)	<i>Males</i> (<i>n</i> =210)
<i>Social Responses</i> ¹		
Aggressive	.35(.47) ^a	.68(.66) ^b
Prosocial	1.69(.32) ^a	1.50(.47) ^b
Withdrawn	.77(.32)	.72(.37)
Adult-Oriented	1.02(.63)	.95(.70)
<i>Self-Efficacy</i> ⁴		
Impression Management	3.31(1.33) ^a	3.73(1.27) ^b
Avoidant	3.03(1.22)	3.07(1.19)
Make other feel bad	2.51(1.29) ^a	3.07(1.40) ^b
Seeking a peaceful solution	3.92(1.01) ^a	3.36(1.31) ^b
Deal with the problem	4.15(.80)	3.99(.86)
Protecting the self	3.76(1.06) ^a	4.09(.90) ^b
Relationship Maintenance	3.69(1.04) ^a	3.07(1.19) ^b
Retaliation	2.61(1.35) ^a	3.17(1.42) ^b

Note: Means with different superscripts are significantly different from each other.

¹ -Range of choices was 1 to 10.

² -Range of Responses 1 to 4.

³ -Range of Responses was 0 to 2.

⁴ -Range of Responses was 1 to 5.

Table 8.

Descriptives for Social Information Processing Components by Grade

<i>Factor</i>	<i>Grade 4</i> (<i>n</i> =155)	<i>Grade 5</i> (<i>n</i> =132)	<i>Grade 6</i> (<i>n</i> =206)
<i>Hostile Attributions</i> ¹	4.04 (3.20)^a	4.90 (3.02)^b	4.68 (3.01)
<i>Causal Attributions</i>			
Frequency of Failure ²	1.74(.71)	1.78(.62)	1.71(.63)
Frequency of Success ²	2.87(.80)	2.89(.72)	2.84(.73)
Control Over Failure ³	.65(.42)	.60(.43)	.59(.44)
Control Over Success ³	.79(.48)	.61(.41)	.63(.45)
Self-Defeating Attributions ³	.63(.40)	.62(.36)	.55(.40)
Self-Serving Attributions ³	1.12(.34)	1.11(.32)	1.09(.30)
<i>Social Goals</i> ⁴			
Impression Management	3.41(1.36)	3.43 (1.28)	3.18 (1.31)
Avoidant	2.71 (1.16)	2.87 (1.11)	2.57 (1.02)
Make other feel bad	2.01(1.11)^a	2.45(1.30)^b	2.44(1.22)^b
Seeking a peaceful solution	3.82(1.22)^a	3.42(1.20)^b	3.34(1.22)^b
Deal with the problem	4.06(0.81)	4.13(0.76)	4.18(0.72)
Protecting the self	3.89(0.98)	3.77(1.08)	3.68(1.05)
Relationship Maintenance	3.52(1.23)^a	3.10(1.13)^b	3.04(1.16)^b
Retaliation	2.15(1.19)^a	2.58(1.32)^b	2.52(1.26)^b

Table 8. continued.

<i>Factor</i>	<i>Grade 4</i> (<i>n</i> =155)	<i>Grade 5</i> (<i>n</i> =132)	<i>Grade 6</i> (<i>n</i> =206)
<i>Social Responses</i> ¹			
Aggressive	.45(.59)	.56(.62)	.50(.57)
Prosocial	1.67(.36)^a	1.53(.45)^b	1.61(.39)
Withdrawn	.77(.33)	.76(.36)	.71(.35)
Adult-Oriented	1.23(.62)^a	.94(.66)^b	.80(.63)^b
<i>Self-Efficacy</i> ⁴			
Impression Management	3.50(1.34)	3.67(1.29)	3.38(1.31)
Avoidant	3.01(1.29)	3.11(1.19)	3.03(1.16)
Make other feel bad	2.52(1.29)^a	2.90(1.41)^b	2.89(1.39)^b
Seeking a peaceful solution	3.91(1.18)^a	3.57(1.16)^b	3.52(1.18)^b
Deal with the problem	4.05(.87)	4.05(.83)	4.12(.81)
Protecting the self	4.05(.94)	3.86(1.01)	3.83(1.05)
Relationship Maintenance	3.62(1.19)^a	3.28(1.12)^b	3.32(1.12)^b
Retaliation	2.63(1.35)^a	2.96(1.46)^b	3.01(1.40)^b

Note: Means with different superscripts are significantly different from each other.

¹ -Range of choices was 1 to 10.

² -Range of Responses 1 to 4.

³ -Range of Responses was 0 to 2.

⁴ -Range of Responses was 1 to 5.

intent attributions. Males attributed hostile intent to peers in more scenarios than females. Follow analyses for grade level indicated that children in grade 5 attributed more hostility to peers than did children in grade 4. No main effects for gender or grade were found for causal attributions. Results from a 2 x 3 MANOVA indicated a significant effect of gender ($F(8,425)=7.96, p < .001$) and grade ($F(16,852)=3.31, p < .001$) for social goals. Follow-up ANOVAs revealed significant effects of gender for six of the goals: impression management ($F(1,432)=21.03, p < .001$); make other feel bad ($F(1,432)=42.78, p < .001$); seeking a peaceful solution ($F(1,432)=54.49, p < .001$); protecting the self ($F(1,432)=12.11, p < .001$); relationship maintenance ($F(1,432)=57.37, p < .001$); retaliation ($F(1,432)=42.43, p < .001$). No differences were found for avoidant ($F(1,432)=.46, n.s$) or problem-solving goals ($F(1,432)=1.42, n.s$). Overall, females rated prosocial goals higher, and aggressive and impression management goals lower than males in the present study.

There was a significant effect of grade for four of the goals: make other feel bad ($F(2,432)=18.24, p < .001$); seeking a peaceful solution ($F(2,432)=20.83, p < .001$); relationship maintenance ($F(2,432)=19.73, p < .001$); and retaliation ($F(2,432)=15.59, p < .01$). There was no effect for impression management ($F(2,432)=5.25, n.s$), avoidant ($F(2,432)=7.06, n.s$), problem-solving ($F(2,432)=.94, n.s$) or self-protection goals ($F(2,432)=2.89, n.s$). Follow-up analyses indicated that children in grade 4 rated prosocial goals higher and aggressive goals lower than older children.

Results of a second 2 x 3 MANOVA indicated a significant effect of gender ($F(4,428)=11.04, p < .001$) and grade ($F(8,858)=5.68, p < .001$) for social responses. Results of the follow-up ANOVAs revealed a effect of gender for aggressive ($F(2,431)=37.07, p < .001$); and prosocial responses ($F(2,432)=23.05, p < .001$). There were no differences for adult-oriented ($F(2,432)=1.53, n.s$) and withdrawn responses ($F(2,432)=2.42, n.s$). Females

rated prosocial responses higher and aggressive responses lower than males. There was also an effect of grade for adult-oriented ($F(2,431) = 18.69, p < .001$); and prosocial responses ($F(2,432) = 3.97, p < .05$). There were no differences for withdrawn ($F(2,432) = 2.89, n.s.$) and aggressive responses ($F(2,432) = 2.89, n.s.$). Multiple comparisons revealed that younger children rated adult-oriented and prosocial responses higher than older children.

Results of a third 2 x 3 MANOVA indicated a significant effect of gender ($F(8,425) = 7.38, p < .001$) and grade ($F(16,852) = 2.25, p < .01$) on self-efficacy ratings. Follow-up ANOVAs revealed significant effects of gender for six of the eight options: retaliation ($F(2,432) = 34.60, p < .001$), making the other feel bad ($F(2,432) = 35.82, p < .001$), maintaining the relationship ($F(2,432) = 40.48, p < .001$), seeking a peaceful solution ($F(2,432) = 32.42, p < .001$), protecting the self ($F(2,432) = 12.20, p < .001$) and impression management ($F(2,432) = 19.01, p < .001$). Non-significant differences were found for the avoidance and problems solving options ($F(2,432) = .26, n.s.$ and $F(2,432) = 2.37, n.s.$ respectively). Females rated their efficacy for attaining prosocial goals higher and for attaining aggressive and impression management goals lower than males.

Results of follow-up ANOVAs revealed an effect of grade on four efficacy options: make other feel bad ($F(2,432) = 3.76, p < .05$); seeking a peaceful solution ($F(2,432) = 5.33, p < .01$); relationship maintenance ($F(2,432) = 3.99, p < .05$); and retaliation ($F(2,432) = 3.26, p < .05$). There were no grade effects for impression management ($F(2,432) = 1.77, n.s.$), avoidant ($F(2,432) = .36, n.s.$), problem-solving ($F(2,432) = .23, n.s.$), or self-protection ($F(2,432) = 2.00, n.s.$) options. Multiple comparisons revealed that children in grade 4 rated their efficacy for attaining prosocial goals higher and aggressive goals lower than children in grades 5 or 6.

Group Differences in Social Cognition

Grade and gender were entered as additional IVs in all analyses, if no interaction was yielded, analyses were re-run with only group membership as the IV. Also, for all DVS that were not normally distributed, transformations were run, and analyses were computed with the original variable and the transformed one. In all cases, there were no differences in the results obtained, so analyses with the original variables were maintained.

Intent attributions. Results of an ANOVA revealed no significant effect of group membership ($F(2,306)=1.56$, n.s.) for children's hostile intent attributions. Overall, children identified hostile intent for approximately half of the ambiguous conflict situations (see Table 9 for descriptives).

Causal attributions. A MANOVA was run with group membership (aggressive, withdrawn, and comparison) as the IV and the six causal attribution factors as DVs (Familiarity and Control for Success and for Failure situations, Self-Defeating and Self-Serving Bias) (see Table 9). Analyses revealed a significant multivariate effect of group membership ($F(12,542)=2.59$, $p < .01$). Follow-up univariate analyses revealed a main effect of group for three of six factors: Familiarity with Failure ($F(2,275)=8.50$, $p < .001$); Self-Defeating Biases ($F(2,275)=8.58$, $p < .001$); and Control Over Social Success ($F(2,275)=3.17$, $p < .05$). Follow-up multiple comparisons (LSD) revealed that children in the withdrawn group indicated more familiarity with social failure than those in the aggressive ($M_{diff}=.34$, $p < .05$) or comparison groups ($M_{diff}=.43$, $p < .001$). Further, children in the withdrawn group indicated more control over perceived social success than the children in the aggressive group ($M_{diff}=.23$, $p < .05$). Finally, peer-identified withdrawn children rated self-defeating attributions higher than children in the aggressive ($M_{diff}=.31$, $p < .001$) and comparison groups ($M_{diff}=.25$, $p < .001$).

Table 9.

Descriptives for the Social Response Factors by Group

<i>Factor</i>	<i>Withdrawn (<i>n</i>=50)</i>	<i>Aggressive-Disruptive (<i>n</i>=53)</i>	<i>Comparison (<i>n</i>=206)</i>
<i>Hostile Attributions</i> ¹	3.92 (.283)	4.98 (3.02)	4.51 (3.12)
<i>Causal Attributions</i>			
Frequency of Failure ²	2.07 (.75)^a	1.72 (.62)^b	1.63 (.60)^b
Frequency of Success ²	2.79 (.78)	2.93 (.77)	2.94 (.75)
Control Over Failure ³	.62 (.40)	.62 (.47)	.61(.41)
Control Over Success ³	.78 (.44)^a	.55 (.43)^b	.66 (.46)^a
Self-Defeating Attributions ³	.79 (.38)^a	.48 (.36)^b	.53 (.38)^b
Self-Serving Attributions ³	1.21 (.30)	1.03 (.29)	1.11 (.34)
<i>Social Goals</i> ⁴			
Impression Management	2.95(1.41)^a	3.62(1.20)^b	3.34(1.34)^{b+}
Avoidant	2.83(1.31)	2.54(1.00)	2.61(1.06)
Make other feel bad	2.15(1.30)	2.53(1.29)	2.25(1.19)
Seeking a peaceful solution	3.80(1.25)^a	3.11(1.34)^b	3.58(1.18)^a
Deal with the problem	4.04(.91)	4.00(.75)	4.24(.71)
Protecting the self	3.76(1.19)	3.91(1.01)	3.77(1.03)
Relationship Maintenance	3.45(1.27)^a	2.85(1.15)^b	3.23(1.17)^a
Retaliation	2.20(1.27)	2.76(1.29)	2.35(1.24)

Table 9. continued.

<i>Factor</i>	<i>Withdrawn</i> (<i>n</i> =50)	<i>Aggressive-Disruptive</i> (<i>n</i> =53)	<i>Comparison</i> (<i>n</i> =206)
<i>Social Responses</i> ¹			
Aggressive	.32 (.50) ^a	.65 (.66) ^b	.46 (.55) ^a
Prosocial	1.65 (.38) ^b	1.47 (.50) ^a	1.62 (.39) ^b
Withdrawn	.88 (.39) ^a	.71 (.35) ^b	.74 (.35) ^b
Adult-Oriented	1.05 (.64)	.93 (.68)	.98 (.65)
<i>Self-Efficacy</i> ⁴			
Retaliation	3.04(1.44)	3.82(1.22)	3.50(1.30)
Make the other feel bad	3.04(1.39)	2.94(1.24)	3.05(1.18)
Maintaining the relationship	2.59(1.50)	2.98(1.43)	2.75(1.34)
Seeking a peaceful solution	3.87(1.20)	3.24(1.35)	3.75(1.15)
Protecting the self	4.06(.92)	3.90(.88)	4.17(.81)
Impression management	3.78(1.11)	4.08(.89)	3.95(1.01)
Avoidance	3.67(1.17)	3.07(1.10)	3.47(1.13)
Deal with the problem	2.68(1.52)	3.11(1.23)	2.86(1.42)

Note: Means with different superscripts are significantly different from each other.

* -trend $p < .1$

¹ -Range of choices was 1 to 10.

² -Range of Responses 1 to 4.

³ -Range of Responses was 0 to 2.

⁴ -Range of Responses was 1 to 5.

Social goals. A MANOVA conducted with group membership (aggressive, withdrawn, and comparison) as the IV and the eight social goal options revealed a significant multivariate effect of group for social goals ($F(16,572)=1.66, p < .05$). Results of follow-up ANOVAs revealed an effect of group for impression management ($F(2,292)=3.12, p<.05$), seeking a peaceful solution ($F(2,292)=4.18, p<.05$), and relationship maintenance goals ($F(2,292)=3.28, p<.05$). There was a trend toward an effect of group for problem solving ($F(2,292)=2.85, p<.1$) and retaliation ($F(2,292)=2.73, p<.1$) goals. Finally, there were no differences between groups for goals relating to avoidance ($F(2,292)=1.01, n.s.$), making others feel bad ($F(2,292)=1.37, n.s.$), and protecting the self ($F(2,292)=.33, n.s.$). Follow-up multiple comparisons revealed that children in the withdrawn group rated impression management (assertive) goals less positively than peer-identified aggressive children ($M_{diff}=-.67, p< .05$), and tended to differ from comparison children ($M_{diff}=-.38, p< .1$). Further, peer-identified withdrawn children rated peaceful and relationship maintenance goals higher than peer-identified aggressive children ($M_{diff}=.68$ and $.60$ respectively, $p< .01$), but did not differ from comparison children.

Social responses. A MANOVA was run with group membership (aggressive, withdrawn, and comparison) as the IV and the four social response factors (withdrawn, adult-oriented, aggressive, and problem-solving) as DVs (see Table 10 for descriptives). This analysis revealed a significant multivariate effect ($F(8,582)=2.02, p < .05$). Follow-up univariate analyses revealed a significant between group effect for aggressive responses ($F(2,293)=4.25, p < .05$), prosocial responses ($F(2,293)=3.09, p < .05$), withdrawn responses ($F(2,293)=4.89, p < .01$). These differences were not significant for adult-oriented responses ($F(2,293)=.40, n.s.$). Follow-up t-tests (LSD) revealed that children in the withdrawn group endorsed less aggressive responses than peer-identified aggressive children ($M_{diff}=-.33, p<$

.01), more withdrawn responses than children identified as aggressive ($M_{diff}=.17, p< .05$) or comparisons ($M_{diff}=.17, p< .01$). Finally, children in the aggressive group rated prosocial responses more negatively than children in the withdrawn ($M_{diff}=-.33, p< .05$) or comparison groups ($M_{diff}=-.15, p< .05$) (the latter two groups were not significantly different).

Self-efficacy. Results from a third MANOVA revealed a non-significant effect of group membership on children's ratings of self-efficacy ($F(16,572)=1.39, n.s.$).

Discussion

Children rated as withdrawn reported higher frequencies of failure in social situations and more self-defeating attributions than children rated as aggressive or comparisons. Their social goals did not differ from children in the comparison group, although they endorsed more withdrawn social responses. Despite these differences, they did not rate themselves as lower in self-efficacy beliefs, on any of the social dimensions. In contrast, peer-identified aggressive children perceived that they had less control over success than peer-identified withdrawn or comparison children. They rated impression management as more important, were less likely to seek a peaceful solution to conflicts, and were less concerned with relationship maintenance than the other groups of children. They endorsed more aggressive and fewer prosocial goals than withdrawn or comparison children. Despite this social-cognitive profile, however,, they did not vary from the other groups in self-perceived social efficacy

The main goal of the present study was to explore differences in the social cognitions of peer-identified withdrawn, aggressive and comparison children. Results indicated that children identified as withdrawn, although displaying some social-cognitive biases, were more similar in their processing to comparison children than to peer-identified

aggressive children. These findings suggest that maladjustment in general is not associated with only one pattern of processing bias or deficits.

Overall, findings from this study replicated those of previous research regarding the social cognitions of peer-identified aggressive children. Further, gender and age differences reported by researchers were replicated, however, these factors did not interact with group membership. These results are not surprising, and suggest that the methodology and protocol of this study were similar to that of previous research. This fact provides credence to the current findings regarding similarities and differences between peer-identified withdrawn, aggressive and comparison children.

This study was conceptualized within the social information-processing framework developed by Dodge and colleagues (Dodge, 1986; Dodge & Crick, 1994). This model was chosen because it provides a well-developed framework to guide social-cognitive research, applies to all children, and has been widely employed in research on the social cognitive behaviour of children. The social cognitions assessed were selected from points within this framework. Specifically, intent and causal attributions were conceptualized by Dodge and Crick as part of Step 2: Interpretation of Cues. Assessment of social goals occurs in Step 3: Clarification of Goals. Finally, evaluation of social responses and self-efficacy for attaining goals occurs in Step 5 of the model. These areas were chosen because of the prior research and development of measures for use with children, particularly aggressive ones. This history allowed for basing new research on prior findings and adding to this knowledge base. Further, the existence of well-developed measures of these aspects of the model ensured comparability across studies.

The following discussion has been organized into the steps of processing identified by Crick and Dodge (see Figure 2). Findings from the present study are discussed within this

Figure 2.

Social Information Processing of Children Identified as Withdrawn

framework. However, at the same time the literature extant has been synthesized to provide a clear picture of the knowledge regarding social cognitions and processing of children identified as engaging in behaviours believed to reflect internalizing disorders.

Gender and Age Effects

Gender and age differences in processing were not a focus of the current research. In fact, an absence of interactive effects with group membership allowed for the removal of these factors from further analyses. However, pervasive gender and age differences were found for the majority of social cognitive variables included in this study. Surprisingly, younger children indicated a more prosocial social-cognitive stance than older children. This finding may indicate that younger children responded in a more socially desirable manner to the questionnaires. Assessments of social desirability could be included in future research to determine the accuracy of this supposition.

Overall, females responded in a more prosocial and less aggressive manner than males. These findings have implications for the study of social information processing. In fact, it would appear that boys and girls differ in their patterns of processing and thus their competence in social interactions.

Withdrawal from a Social Information Processing Perspective

Much of the previous research in the area of social information processing has included samples of children who exhibit behaviours believed to reflect internalizing disorders, rather than those children identified as socially withdrawn. However, the robust nature of the association between peer-rated withdrawal and internalizing characteristics supports the generalization of findings from the present study to prospective studies of the social cognitive processing of peer-identified withdrawn children. In fact, findings from this study of withdrawal exhibited a high degree of similarity with prior research on the social

cognitions of groups of children who engage in anxious, lonely, or depressed behaviours. In the following sections, findings of the present study are examined from within the framework of the information-processing model. Steps for which current findings were available are described first, followed by steps for which no data was collected.

Step 2: Interpretation of Cues

According to previous research and the current study, it appears that peer-identified withdrawn children are biased in their interpretation of social cues. Findings from the current study indicated that children rated as withdrawn take a self-defeating view of their role in social interactions and do not view themselves as in control of their success. Moreover, they blame themselves for their failures, which they perceive to occur often. Finally, although there was no direct support for a hostile attribution bias for the children in the present study, there was some indication that these children may be sensitive to particular kinds of conflict situations.

Intent attributions. At the inception of the current study it was expected that peer-identified aggressive and withdrawn children would attribute more hostility to peers in an ambiguous conflict situations than comparison children. In fact, all three groups of children attributed hostile intent to peers in ambiguous conflict situations approximately 50% of the time; there were no between group differences. Erdley and Asher (1996) reported similar rates using the same measure.

Although research to suggest that children identified as withdrawn would exhibit hostile intent attribution biases was scarce, prior research regarding the attributions of children identified as aggressive was clear: they were more likely to attribute hostility to peers in ambiguous conflict-situations. On the surface the lack of support for between-group differences was surprising. However, Waas (1988) has reported that children identified more

hostile intent in situations that were clearly hostile or if an ambiguous situation was presented in which it seemed consistent that the peer would act in a hostile manner. These findings suggest that a closer examination of the content of the conflict scenarios presented in the current study is warranted.

For three of ten scenarios presented in the current study, more than half of the children in the withdrawn group identified hostile intent by peers, and for two of the three scenarios more of these children identified hostile intent by peers. These scenarios all included the suggestion that when children turned away and came back, someone had broken a personal item, or splashed water on them (see Appendix E scenario 4, 6, and 8). Thus, it is possible that different types of situations may be more salient for peer-identified withdrawn, aggressive, and comparison children. This suggestion should be examined further, with a focus on the identification of key aspects of a situation that may be more salient to different groups of children.

Causal attributions. In terms of causal attributions, it was hypothesized that peer-identified withdrawn children would feel less control over their social situations than other children, and would exhibit a pattern of self-defeating biases. Again, although past research with children identified as engaging in behaviours believed to reflect internalizing disorders has been sparse, researchers have reported children identified as lonely, depressed, and distressed children exhibited a pattern of self-defeating attributions (self-blame for failure and not taking responsibility for success; Crick & Ladd, 1993; Sweeney et al., 1986; Quiggle et al., 1992).

Findings generally supported the hypotheses regarding causal attributions. In particular, two findings indicate that peer-identified withdrawn children differ from other children in their causal attributions for social outcomes. First, these children felt that they

had experienced a higher frequency of social failure than the other two groups. Second, they children demonstrated a stronger pattern of self-defeating attributions than peer-identified aggressive or comparison children (who did not differ significantly): they were more likely to blame something within themselves for their social failures (i.e., "I am not good at making friends"), and were less likely to take credit for their social successes.

Thus, peer-identified withdrawn children perceived themselves as habitually experiencing social failures and endorsed self-defeating attributions. This finding is important and may provide essential information regarding their social information processing deficits. Children with biases in causal attributions are likely to be more hesitant in social situations, and to exert little control over their social interactions. These attitudes could easily develop into "learned helplessness", found to be strongly associated with behaviours believed to reflect internalizing disorders, particularly depression. A cycle of withdrawal and increased symptomology may ensue, leading to a higher degree of maladjustment and increased difficulties in social information processing. At its extreme, these attitudes could lead to negative outcomes such as suicidal ideation, and stress related physical and/or mental disorders.

Notably, peer-identified withdrawn children displayed self-defeating attributions, but at the same time did not perceive their control over success or failure to be any less than other children. These apparently contradictory findings may be explained by the suggestion that these children may have recognized that it was possible to intervene in social situations (i.e., they may have the social knowledge). At the same time, their typical response patterns may not include recognition and utilization of these opportunities due to other factors (e.g., low self-efficacy for the behavioural response). This suggestion is interesting and would

support the contention that peer-identified withdrawn children do not have a knowledge deficit.

Aside from perceived control over failure or success, there were no between-group differences for children's reported frequency of success. It is possible that the measure developed for the present study was not sensitive enough to detect differences. Alternatively, social failure situations may be more salient to children who engage in socially withdrawn behaviours, and social successes of less import. This suggestion is supported by the current study. Specifically, although children identified as withdrawn are biased toward seeing themselves as frequently failing in a social situation, they do not report a corresponding reduction in perceived successes. These findings should be explored further and may have implications for intervention. For example, children who report a high frequency of social failures could be trained to focus on their social successes rather than on the negative aspects of social encounters.

In summary, the present research contributes to knowledge of peer-identified withdrawn children's interpretations of cues. Areas of intent and causal attributions, and self-perceptions are more often a focus of research, and knowledge is accruing. However, research is needed regarding these children's performance evaluations and perceptions of how other children behave and perceive them (reflection of the self).

Step 3: Clarification of Goals

Very little research has been conducted to examine the social goals of children identified as withdrawn. Erdley and colleagues (Erdley & Asher, 1996; Erdley et al., 1997) found an association between children's ratings of their preferred response to conflict and their goals. However, they did not report any differences in goals between children rated as

withdrawn by peers and other children. This finding was partially replicated in the present research.

In the current study, peer-identified withdrawn children closely resembled the comparison group. They endorsed prosocial goals, and were concerned with relationship maintenance rather than self-protection or aggressive goals. Findings from this study provide support for the suggestion that peer-identified withdrawn children do not have difficulties identifying prosocial goals, but may have difficulties in engaging in behaviours to attain these goals. Interestingly, these children rated goals of impression management (called assertive by Erdley and Asher, 1996) lower than children in the aggressive or comparison groups. These children may be less concerned with the way peers perceive them in situations of conflict than they are maintaining a relationship. It is possible that peer-identified withdrawn children place a higher value on getting along with peers, even during conflict situations, than they do on attaining a "cool" façade. Their better adjusted peers may be more focused on maintaining both sides of this issue: stay "cool" and stay friends. This finding may indicate a hypersensitivity of peer-identified withdrawn children to social relationship goals, and may result in more diffident behaviours during interactions. This suggestion is consistent with the findings of Rubin and colleagues regarding withdrawn children's pursuit of lower cost goals and peers attainment of higher cost goals from children identified as withdrawn than from comparison peers (Rubin, 1982; Rubin, 1985; Rubin et al., 1984). Further, findings from a recent study by Schneider (1999) reported that peer-identified withdrawn children perceived their friendship to have greater closeness and helpfulness than did their play partners. If these children were found to be hypersensitive to relationship maintenance, further avenues of research could be pursued.

The findings from this study have provided an important forward movement with respect to our knowledge of the processing of peer-identified withdrawn children. However more research is needed to replicate and extend these findings. Further, we have little knowledge of how children clarify their goals. Aspects of this step in the process such as emotion and arousal regulation and goal choices need to be pursued further as well.

Step 5: Response Decision

The processing of peer-identified withdrawn children differed from that of other children at this step. With respect to the endorsement of prosocial and aggressive responses, peer-identified withdrawn children were very similar to comparison children: they rated prosocial goals higher and aggressive goals lower than peer-identified aggressive children. However, these children also indicated that they would be more likely to engage in non-assertive, withdrawing responses to conflicts.

In research with preschool-aged children (Ladd & Mars, 1986; Wichmann & Coplan, 1997), children identified as withdrawn rated adult-oriented strategies more positively than other children. This finding was not replicated in the present study; this suggests that reliance on adult intervention may be a marker for withdrawal in early childhood, but is not salient characteristic of withdrawal in middle childhood.

This finding highlights the need for increased knowledge of developmental marker variables for social withdrawal. There has been some initial research regarding this issue by Asendorpf (1990a, 1990b, 1991). Asendorpf reported that passive withdrawn behaviour, although not associated with negative outcomes in preschool, became an indicator of social difficulties in grade 1. This issue should be addressed in future research.

Erdley and Asher (1996) reported that children with a preference for withdrawn responding also reported similar patterns of self-efficacy to prosocial responders: they

thought they would be skilled at attaining prosocial goals and less able to attain antisocial ones. On the other hand, aggressive responders reported efficacy for attaining aggressive goals. Thus, it was expected that peer-identified withdrawn and aggressive children would differ in their perceived self-efficacy for attaining social goals. In fact, non-significant differences were found for the effect of group membership on self-efficacy ratings in the present study. This finding is contrary to the limited evidence that exists, particularly for peer-identified aggressive children. This measure should have been able to detect differences; Erdley and Asher (1996) reported an effect. It would appear that the properties of this measure need to be examined further.

Children in the withdrawn, aggressive and comparison groups did not vary in their efficacy evaluations. This finding is counterintuitive, considering prior evidence concerning biases in causal attributions and poorer self-perceptions of children identified as withdrawn. It is possible, although unlikely, that these children do not recognize their difficulties in social interactions. On the other hand, it is possible that peer-identified withdrawn children's responses do not reflect their actual behaviours. Although they may feel like they could act in a prosocial and competent manner, they report a preference for withdrawn responses in the face of conflict. Further research is needed to determine the link between how peer-identified withdrawn children behave and their reported efficacy for the behaviours.

The "Database"

There was no assessment of characteristics included in what Crick and Dodge refer to as the "database" (or what children bring to an encounter). However, recent reviews of the research on shyness and social withdrawal unequivocally highlight the predictors and associates of this construct (see for example, Rubin et al., in press; Schmidt & Fox, 1998; Schmidt & Schulkin, 1999). These factors include psychophysiological components such as

right frontal activation and characteristics of the parent-child relationship such as maternal over-control and sensitivity. Also, it has been established that withdrawn behaviour is associated with internalizing symptoms such as depression and loneliness (e.g., Burgess, 1997). These factors would also affect all steps of processing for children.

Recent reviews of the literature regarding the study of withdrawal have provided some clarification regarding sources and associates of social withdrawal and shyness. However, further research is required to determine the impact of children's characteristics on their processing at particular steps..

Step 1: Encoding Internal and External Cues

In the literature there is little information concerning peer-identified withdrawn children's attentiveness to cues and ability to encode information. Further, children's processing at this step was not addressed in the present study. Needless to say, future research should focus on the encoding stage, determining whether withdrawal is associated with biases in cue recognition or encoding. For example, one might expect that children's level of anxiety and distress would negatively affect their ability to accurately and completely encode social cues. Step 4: Response Access or Construction

Processing at this stage was not assessed in the present research, nor was there existing research concerning this step for peer-identified withdrawn children. However, Greno-Malsch (1998) has reported that children exhibiting symptoms of depression were more likely to solve interpersonal conflicts at developmentally lower levels, and had fewer negotiation strategies in their repertoires than non-depressed children. These findings provide some initial indications of biases or deficits in response generation for children with internalizing problems. However further research is needed to examine the response repertoires of peer-identified withdrawn children.

Step 6: Behavioural Enactment

Children's behavioural enactment of chosen response strategies was not assessed in the present research. However, Rubin and colleagues have reported that young children identified as withdrawn pursue lower-cost goals in peer interactions, and that these attempts were less likely to succeed than those of children not rated as withdrawn. More recently Schneider (1999) reported that in dyadic play with a friend, children identified as withdrawn were more restricted in their verbal communication, and less competitive than non-withdrawn children. These findings suggest that peer-identified withdrawn children do not engage in assertive responses with peers may be non-assertive. Thus, their behaviours are consistent with their perceptions of themselves found in the current study. These findings in combination with the current finding that peer-identified withdrawn children may be less concerned with their peer reputation than maintaining a relationship, further supports the suggestion of a hypersensitivity, and perhaps deference, to peers even during conflict situations.

Significantly more research is needed with respect to how children identified as withdrawn actually behave during social interactions. There is a body of research that maintains that what children say they would do and what they actually do is not necessarily the same thing (Rubin et al., 1984). Although a more difficult methodology, observation of children's behaviours and peer responses is very much needed; it will allow for the examination of the degree of association between words and actions for children identified as withdrawn.

Patterns of behaviour

Findings from the current research provide support for the notion that peer-identified aggressive and withdrawn children do not exhibit similar patterns of social

cognitions, and may approach information processing from different perspectives. It is clear that the examination of children's social cognitions on a micro level (i.e., types of social goals) provided more information regarding areas of discrepancy than global ratings of social competence would have yielded. In fact, it is possible that peer-identified aggressive and withdrawn children would have been rated similarly on a global measure of competence, but important information has been garnered from taking an information-processing approach to the study of social cognitions of peer-identified withdrawn children.

Knowledge Deficits Versus Bias

The findings regarding the social cognitions of peer-identified withdrawn children compared to peer-identified aggressive and comparison children provided some evidence for the belief that peer-identified withdrawn children do not have knowledge deficits, but demonstrate biases due to previous experience and perceptions. Further, characteristics of peer-identified withdrawn children's behaviour, such as behaviours believed to reflect internalizing disorders and verbal reticence, may contribute to their lack of assertiveness in social situations. Also, findings from this study provided preliminary support for the notion that these children may be hypersensitive to maintaining social relationships. This bias may affect the behavioural responses of these children to peers in social encounters, to their deficit.

Aside from a finding that peer-identified withdrawn children in the present study were less assertive in their goals and strategies, they did not differ greatly from comparison children. However, these children had more biases in their causal attributions than the other children. These biases may have stemmed from experience, as peer-identified withdrawn children perceived themselves to have failed in social situations more often than other children. This finding suggests that these children may have the social knowledge regarding

competent behaviour, but may have difficulty acting in a manner consistent with this knowledge.

Further, peer-identified withdrawn children endorsed more internal stable attributions for social failure and more external unstable attributions for social success than other children. This pattern of responding may be an indicator or precursor to a seriously debilitating pattern of behavior called "learned helplessness". Learned helplessness in social situations can easily be generalized into other aspects of children's lives and act as inhibiting factors. The finding that peer-identified withdrawn children, even in middle childhood, already exhibited a negative attributional style underlines the importance of the development and implementation of early intervention to prevent children from developing pervasively negative patterns of cognitions. Parents and educators need to focus on addressing these issues at an early age.

Research Issues and Directions for Future Research

Classification procedure. For the most part the procedure used to classify children as part of the withdrawn, aggressive or comparison groups has been validated in previous research. The use of an extreme group methodology for the majority of the analyses was supported by previous research. Moreover, support for qualitative differences between extreme groups of peer-identified withdrawn children and those who display some of that behaviour is provided from some researchers as well. For example, Schneider and colleagues (Schneider, Younger, Smith, & Freedman, 1998) have reported withdrawn behaviours to be stable for children at the extreme end of the continuum of the behaviour.

Measures. The established measures used in this study demonstrated similar properties as reported in previous research. They would appear to be appropriate to employ in research with behaviourally withdrawn children. The measure of causal attributions

developed for the current study also indicated internal consistency and demonstrated discriminant validity with the locus and stability options as well as with the frequency and control over social success and failure. This measure should be further tested for psychometric properties, however, initial indications suggest that it may be viable for use in further research.

Causality. Unfortunately, although this research may be able to answer questions concerning the relations between children's patterns of social cognitions and behaviours, determining the direction of causality for aspects of processing was not possible. We now have evidence that peer-identified withdrawn children exhibit bias in their causal attributions, select less assertive goals, and endorse withdrawn responses to conflict situations than other children. However, determination of how these different aspects of social cognition impact on each other remains unclear. Longitudinal research is needed to uncover these linkages.

General Conclusions

Prior to the completion of this study, there had been little research on the social cognitive process of behaviourally withdrawn children in middle childhood. The present study has provided some initial findings in many areas in which further research can be pursued. There were some limitations to this research, but the majority of these were associated with a lack of information rather than problems with the design or implementation of the study. Overall, this study provided an encouraging start to a venue of research focused on the social cognitions and information processing of peer-identified withdrawn children.

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Appendix A. Parental Information and Consent Letter

Dear Parents,

Children's ability to succeed both in school and outside in the social world is certainly influenced by their ability to get along with others (e.g., parents, teachers, classmates). Children who feel comfortable in social settings tend to be more relaxed and eager to learn in the classroom. However, children who experience difficulties with their social relationships may have problems in the school environment. Presently, a research project concerned with how children think about their social environment is being conducted by researchers from Carleton University. The purpose of this study is to relate how children interact with others with their thoughts and feelings about social interaction.

This study will take place during the months of December 1998 to March 1999. Your child will be asked to fill out questionnaires in two sessions of approximately forty-five minutes each. Scheduling will be at the teacher's convenience to minimize interference in the children's daily routine. Children will be asked to be "directors of a class play" and nominate individuals in their class who fit behavioural descriptors (e.g., someone who likes to help others, someone who is shy, someone who gets into fights). They will also be asked to read some stories about situations where children run into problems (e.g., someone spills milk on them), and asked questions about why events occurred, the intent of others, and their goals and responses to such situations. Teachers will also be asked to provide information about behaviours children may exhibit in the classroom.

This project has been approved by the Ethics Committee of the Psychology Department at Carleton University, the Upper Canada District School Board, and the principal of your child's school. All information collected for this study is completely confidential. Questionnaires will be reviewed only by researchers and will be used only for data analysis. Study results will be reported in ways to ensure complete confidentiality of all participants. None of the information collected will appear in any school records. Reports and presentations made from this study will be made available to the school and yourselves.

Participation in this study is completely voluntary; you or your child may choose to withdraw at any time. Additionally, only students with written permission will be allowed to participate. We would be grateful for your cooperation. Whether or not you decide to allow your child to participate, please complete the attached form and return it to your child's school by next week. If you have any questions please feel free to contact Cherami Wichmann (227-0810), Dr. Robert Coplan (520-2600 ext. 8691) or Dr. Tina Daniels (520-2600 ext. 2686). Should you have further concerns with regard to this study, please feel free to contact Dr. Gick (Chair of the Department of Psychology Ethics Committee, 520-2600, ext. 2664), or Dr. Matheson (Chair, Department of Psychology, 520-2600, ext. 2548). Thank you for your assistance.

Sincerely,

Cherami Wichmann

Dr. Robert Coplan

Dr. Tina Daniels

CONSENT FORM

The information collected for this project is confidential and protected under the Municipal Freedom of Information and Protection of Privacy Act, 1989

I have read and understood the request for my son/daughter to participate in this study of how children think about social interactions with other kids. I have discussed it with my son/daughter and....

_____ I give permission for my child to participate.

_____ I do not give permission for my child to participate.

Today's Date: _____ Child's Date of Birth: _____

Name of Child: _____
(please print)

Name of Parent or Guardian: _____
(please print)

Signature of Parent or Guardian: _____

It is very important to my research that I have an accurate count of the number of children who do and do not want to take part in this study. Thus, I would greatly appreciate it if you could please have your child return this form even if your child is not participating. Classes in which the majority of forms are returned will be entered into a draw to win a prize.

Tell Me About You

My full name is: _____

I am a: girl boy

I am _____ years old.

My birthday is on: _____(day) _____(month) _____(year)

My Class Play

Instructions: You are the director of a play by your classmates. As the director you need to cast each role. For the following parts, please decide which of your classmates would best fit each role. As the director, you may choose more than one classmate for each role, but you may not choose yourself. Also, you may choose the same classmate for different roles, if they fit. Please refer your class list and print the number of the chosen classmate, not their name.

Example:

A. Someone who is tall.

1. Someone who is a **good leader**.
2. Someone who **gets into a lot of fights**.
3. Someone who would **rather play alone than with others**.
4. Someone who **has good ideas for things to do**.
5. Someone who **loses their temper easily**.
6. Someone who **shows off a lot**.
7. Someone who you can **trust**.
8. Someone who **interrupts when other children are speaking**.
9. Someone who has **many friends**.
10. Someone who **will wait their turn**.
11. Someone whose feelings get hurt **easily**.
12. Someone who **everyone listens to**.
13. Someone who **plays fair**.
14. Someone who **has trouble making friends**.
15. Someone who **acts like a little kid**.
16. Someone who **has a good sense of humour**.
17. Someone who **can't get others to listen**.
18. Someone who is **very shy**.
19. Someone who is **polite**.
20. Someone who **makes new friends easily**.
21. Someone who is **too bossy**.
22. Someone who is **often left out**.
23. Someone who **helps other people when they need it**.
24. Someone who is **usually sad**.
25. Someone who **everyone likes to be with**.
26. Someone who **can get things done**.
27. Someone who **teases others too much**.
28. Someone who is **usually happy**.
29. Someone who **picks on other kids**.
30. Someone who **likes to play with others rather than alone**.

Using My Imagination

Practice Story

Imagine that you are riding your bike down a quiet street. You ride past a car parked on the side of the street. Another boy is sitting in the car. After you ride past the boy, he honks the horn of the car. It startles you and you fall off the bike and skin your hands and knees.

1. Why did that boy honk the horn and startle you?
 - a) He leaned against the horn by accident.
 - b) The boy wanted to scare me.
 - c) The boy was honking it to be friendly and say "hello".
 - d) The boy wanted me to fall.

2. Do you think the boy startled you:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy startled you?

a) Clean off my hands and knees.	no	maybe	yes
b) Keep away from that boy after that.	no	maybe	yes
c) Get back at that boy the next day.	no	maybe	yes
d) Ask him why he did it.	no	maybe	yes
e) Tell that boy that he is a jerk.	no	maybe	yes
f) Ignore the boy.	no	maybe	yes
g) Go ask my parent for help.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you are sitting at the lunch table at school, eating lunch. You look up and see another boy coming over to your table with a carton of milk. You turn around to eat your lunch, the next thing you know the boy spills milk all over your back and it gets your shirt all wet.

1. Why did the boy get milk all over your back?
 - a) He slipped on something
 - b) He just does stupid things like that to me.
 - c) He wanted to make fun of me.
 - d) He wasn't looking and didn't see me.

2. Do you think that he got milk all over you:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy poured milk on you?

a) Ignore it.	no	maybe	yes
b) Say something mean to him.	no	maybe	yes
c) Go ask a teacher for help.	no	maybe	yes
d) Leave the table.	no	maybe	yes
e) Get a towel or something.	no	maybe	yes
f) Pour milk on the boy's back the next day.	no	maybe	yes
g) Ask him how it happened.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you are standing on the playground playing catch with a number of children. You throw the ball to another boy and he catches it. You turn around and the next thing you realize the boy has thrown the ball and hit you in the middle of your back. The ball hits you hard and it hurts a lot.

1. Why did the boy hit you in the back?

- a) The ball slipped and it hit me.
- b) The boy was being mean.
- c) The boy was mad at me for something.
- d) I shouldn't have turned around.

2. Do you think that he hit you in the back:

- a) on purpose?
- b) by accident?

3. What would you do after the boy hit you?

a) Ask him why he did it.	no	maybe	yes
b) Do nothing.	no	maybe	yes
c) Call him a name.	no	maybe	yes
d) Quit playing.	no	maybe	yes
e) Go ask a teacher for help.	no	maybe	yes
f) Hit the boy with the ball.	no	maybe	yes
g) Get some ice for the swelling.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you are walking to school wearing your new tennis shoes. You really like your new shoes and this is the first day you've worn them. Suddenly you are bumped from behind by another boy, you stumble and fall into a mud puddle and your new shoes get muddy.

1. Why did the boy bump you from behind?
 - a) The boy was being mean.
 - b) The boy was fooling around and pushed too hard by accident-
 - c) The boy was running down the street and didn't see me.
 - d) The boy was trying to push me down.

2. Do you think that the boy bumped you:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy bumped you?

a) Clean up my shoes.	no	maybe	yes
b) Walk away from the boy.	no	maybe	yes
c) Go ask a teacher for help.	no	maybe	yes
d) Forget about it.	no	maybe	yes
e) Tell him he's a jerk.	no	maybe	yes
f) Ask him why he did it.	no	maybe	yes
g) Push the boy in the mud.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you have finished an art project for school. You've worked on it a long time and you're really proud of it. Another boy comes over to look at your project, he is holding a jar of paint. You turn away for a minute, when you look back the boy has spilled paint on your art project. You worked on the project for a long time and now it's ruined.

1. Why did the boy spill paint on your project?
 - a) The boy is a mean kid.
 - b) The boy bumped into the paint by accident.
 - c) The boy is kind of clumsy.
 - d) The boy wanted to ruin your project.

2. Do you think the boy spilled the paint:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy spilled paint on your project?

a) Try to fix the project.	no	maybe	yes
b) Go ask a teacher for help.	no	maybe	yes
c) Act like nothing happened.	no	maybe	yes
d) Spill paint on the boy.	no	maybe	yes
e) Ask him why he did it.	no	maybe	yes
f) Avoid being near the boy in the future.	no	maybe	yes
g) Tell him he's a clumsy idiot.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you are on the playground. You and some other kids are having a race. Another boy is standing on the side, bouncing a basketball. The next thing you know, the boy has bounced the ball and it has rolled under your feet, making you fall. You skin your knee and someone else wins the race.

1. Why did the boy bounce the ball under your feet?
 - a) The boy wanted to get back at me for something.
 - b) The boy didn't see-me coming.
 - c) It accidentally got away from the boy.
 - d) The boy wanted me to lose the race.

2. Do you think the boy made you fall:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy made you fall?

a) Go to another area of the playground.	no	maybe	yes
b) Ask him how it happened.	no	maybe	yes
c) Try to forget it.	no	maybe	yes
d) Say something mean to him.	no	maybe	yes
e) Trip him on the playground.	no	maybe	yes
f) Take care of my knee.	no	maybe	yes
g) Go ask the teacher for help.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you brought your new radio to school today. You saved up your allowance to buy the radio and you want to show it to the other kids at school. You let another boy play with it for a few minutes while you go get a drink of water. When you get back you realize that the boy has broken your brand new radio.

1. Why did the boy break your radio?
 - a) The radio wasn't made well.
 - b) It was an accident.
 - c) The boy was mad at me.
 - d) The boy was jealous of me.

2. Do you think the boy broke it:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy broke your radio?

a) Warn him that I'm going to get back at him.	no	maybe	yes
b) Not play with the boy again.	no	maybe	yes
c) Ask him how it happened.	no	maybe	yes
d) Go ask the teacher for help.	no	maybe	yes
e) Break something that belongs to that boy.	no	maybe	yes
f) Try to figure out what's wrong with the radio.	no	maybe	yes
g) Do nothing.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine you're in the lunchroom, you've just gotten your tray and you're walking to a table. Suddenly, another boy bumps into your arm and you drop your tray. Your food is spilled all over the floor.

1. Why did the boy bump your arm?
 - a) The boy wasn't looking and didn't see me.
 - b) The boy wanted to make me look silly.
 - c) The boy was being mean.
 - d) The boy slipped on something.

2. Do you think that he bumped you:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy bumped you?

a) Make the boy spill his food another day.	no	maybe	yes
b) Go ask the teacher for help.	no	maybe	yes
c) Just ignore it.	no	maybe	yes
d) Clean up the food.	no	maybe	yes
e) Get away from the boy as soon as I can.	no	maybe	yes
f) Say something mean to the boy.	no	maybe	yes
g) Ask him how it happened.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you are beside a water fountain waiting to get a drink. There is another boy taking his turn at the fountain. The next thing you know, the boy has splashed some water on your face.

1. Why did the boy splash water on your face?
 - a) The water fountain wasn't working right.
 - b) The boy wanted to get back at me for something.
 - c) He just does stupid things like that to me.
 - d) His finger slipped, and too much water came out.

2. Do you think the boy splashed water on your face:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy splashed water on your face?

a) Ask him why he did it.	no	maybe	yes
b) Wipe off my face.	no	maybe	yes
c) Warn him that I'm going to get back at him.	no	maybe	yes
d) Go ask the teacher for help.	no	maybe	yes
e) Go back to my desk.	no	maybe	yes
f) Splash water on him another day.	no	maybe	yes
g) Just ignore it.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you are working on a math assignment at your desk. You go to sharpen your pencil, as you walk back to your desk there's a boy walking just in front of you. The boy passes your desk before you get there. The next thing you know, the boy has knocked all of your papers off of your desk all over the floor.

1. Why did the boy knock your papers onto the floor?
 - a) He wanted to mess up my papers.
 - b) He accidentally walked too close to my desk.
 - c) He tripped and bumped my desk.
 - d) He likes to bother people.

2. Do you think the boy knocked your papers onto the floor:
 - a) on purpose?
 - b) by accident?

3. What would you do after the boy knocked your papers onto the floor?

a) Call him a name.	no	maybe	yes
b) Pick up the papers.	no	maybe	yes
c) Do nothing.	no	maybe	yes
d) Ask him why he did it.	no	maybe	yes
e) Go ask the teacher for help.	no	maybe	yes
f) Stay away from the boy.	no	maybe	yes
g) Mess up his papers a little later.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Imagine that you are standing on a chair in your classroom trying to hang up a picture you have drawn. Another boy comes towards you, and runs into the leg of your chair. You slip, and the picture you have worked so hard on gets ripped really badly.

1. Why did the boy run into your chair?

- a) The boy wanted me to fall.
- b) The boy wasn't watching where he was going.
- c) The boy wanted to get back at me for something.
- d) The boy is kind of clumsy.

2. Do you think the boy ran into your chair:

- a) on purpose?
- b) by accident?

3. What would you do after the boy ran into your chair?

a) Act like nothing happened.	no	maybe	yes
b) Ask him how it happened.	no	maybe	yes
c) Go ask the teacher for help.	no	maybe	yes
d) Stay away from the boy in the future.	no	maybe	yes
e) Push the boy.	no	maybe	yes
f) Get some tape and try to fix the picture.	no	maybe	yes
g) Yell at him for being clumsy.	no	maybe	yes

4. Circle the response you would most likely make in this situation.

Appendix C. Session 2 Measures

Tell Me About You

My full name is: _____

My Teacher's Name is: _____

Using My imagination

Imagine that you are riding your bike down a quiet street. You ride past a car parked on the side of the street. Another boy is sitting in the car. After you ride past the boy, he honks the horn of the car. It startles you and you fall off the bike and skin your hands and knees.

1. What would you be trying to do?

	Really Disagree			Really Agree		
a) I would be trying to get back at the other boy.	1	2	3	4	5	
b) I would be trying to stay away from the other boy.	1	2	3	4	5	
c) I would be trying to take care of my hands and knees.	1	2	3	4	5	
d) I would be trying to look strong and make sure the other boy didn't think I was a wimp.	1	2	3	4	5	
e) I would be trying to make the other boy feel bad.	1	2	3	4	5	
f) I would be trying to protect myself.	1	2	3	4	5	
g) I would be trying to still get along with the boy.	1	2	3	4	5	
h) I would be trying to work things out peacefully.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things.

	Really Disagree			Really Agree		
a) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	
b) I would be good at working things out peacefully if I tried.	1	2	3	4	5	
c) I would be good at taking care of my hands and knees if I tried.	1	2	3	4	5	
d) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	
e) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
f) I would be good at protecting myself if I tried.	1	2	3	4	5	
g) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
h) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	

Imagine that you are sitting at the lunch table at school, eating lunch. You look up and see another boy coming over to your table with a carton of milk. You turn around to eat your lunch, the next thing you know the boy spills milk all over your back and it gets your shirt all wet.

1. What would you be trying to do?

	Really Disagree			Really Agree		
a) I would be trying to work things out peacefully.	1	2	3	4	5	
b) I would be trying to get back at the other boy.	1	2	3	4	5	
c) I would be trying to make the other boy feel bad.	1	2	3	4	5	
d) I would be trying to protect myself.	1	2	3	4	5	
e) I would be trying to look strong and make sure the other didn't think I was a wimp.	1	2	3	4	5	
f) I would be trying to stay away from the other boy.	1	2	3	4	5	
g) I would be trying to take care of my wet shirt.	1	2	3	4	5	
h) I would be trying to still get along with the boy.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree			Really Agree		
a) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	
b) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	
c) I would be good at taking care of wet shirt if I tried.	1	2	3	4	5	
d) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
e) I would be good at working things out peacefully if I tried.	1	2	3	4	5	
f) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
g) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	
h) I would be good at protecting myself if I tried.	1	2	3	4	5	

Imagine that you are standing on the playground playing catch with a number of children. You throw the ball to another boy and he catches it. You turn around and the next thing you realize the boy has thrown the ball and hit you in the middle of your back. The ball hits you hard and it hurts a lot.

1. What would you be trying to do?

	Really Disagree			Really Agree		
a) I would be trying to get back at the other boy.	1	2	3	4	5	
b) I would be trying to work things out peacefully.	1	2	3	4	5	
c) I would be trying to stay away from the other boy.	1	2	3	4	5	
d) I would be trying to make the other boy feel bad.	1	2	3	4	5	
e) I would be trying to protect myself.	1	2	3	4	5	
f) I would be trying to take care of my sore back.	1	2	3	4	5	
g) I would be trying to still get along with the boy.	1	2	3	4	5	
h) I would be trying to look strong and make sure the other boy didn't think I was a wimp.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree			Really Agree		
a) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
b) I would be good at working things out peacefully if I tried.	1	2	3	4	5	
c) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	
d) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	
e) I would be good at protecting myself if I tried.	1	2	3	4	5	
f) I would be good at taking care of my sore back if I tried.	1	2	3	4	5	
g) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
h) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	

Imagine that you are walking to school wearing your new tennis shoes. You really like your new shoes and this is the first day you've worn them. Suddenly you are bumped from behind by another boy, you stumble and fall into a mud puddle and your new shoes get muddy.

	Really Disagree			Really Agree	
a) I would be trying to stay away from the other boy.	1	2	3	4	5
b) I would be trying to get back at the other boy.	1	2	3	4	5
c) I would be trying to protect myself.	1	2	3	4	5
d) I would be trying to work things out peacefully.	1	2	3	4	5
e) I would be trying to make the other boy feel bad.	1	2	3	4	5
f) I would be trying to look strong and make sure the other boy didn't think I was a wimp.	1	2	3	4	5
g) I would be trying to take care of my new shoes.	1	2	3	4	5
h) I would be trying to still get along with the boy.	1	2	3	4	5

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree			Really Agree	
a) I would be good at protecting myself if I tried.	1	2	3	4	5
b) I would be good at working things out peacefully if I tried.	1	2	3	4	5
c) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5
d) I would be good at still getting along with the boy if I tried.	1	2	3	4	5
e) I would be good at taking care of my new shoes if I tried.	1	2	3	4	5
f) I would be good at getting back at that boy if I tried.	1	2	3	4	5
g) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5
h) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5

Imagine that you have finished an art project for school. You've worked on it a long time and you're really proud of it. Another boy comes over to look at your project, he is holding a jar of paint. You turn away for a minute, when you look back the boy has spilled paint on your art project. You worked on the project for a long time and now it's ruined.

1. What would you be trying to do?

	Really Disagree			Really Agree		
a) I would be trying to still get along with the boy.	1	2	3	4	5	
b) I would be trying to look strong and make sure the other boy didn't think I was a wimp.	1	2	3	4	5	
c) I would be trying to get back at the other boy.	1	2	3	4	5	
d) I would be trying to make the other boy feel bad.	1	2	3	4	5	
e) I would be trying to stay away from the other boy.	1	2	3	4	5	
f) I would be trying to take care of my art project.	1	2	3	4	5	
g) I would be trying to protect myself.	1	2	3	4	5	
h) I would be trying to work things out peacefully.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree			Really Agree		
a) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
b) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	
c) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	
d) I would be good at working things out peacefully if I tried.	1	2	3	4	5	
e) I would be good at protecting myself if I tried.	1	2	3	4	5	
f) I would be good at taking care of my art project if I tried.	1	2	3	4	5	
g) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
h) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	

Imagine that you are on the playground. You and some other kids are having a race. Another boy is standing on the side, bouncing a basketball. The next thing you know, the boy has bounced the ball and it has rolled under your feet, making you fall. You skin your knee and someone else wins the race.

1. What would you be trying to do?

	Really Disagree			Really Agree		
a) I would be trying to make the other boy feel bad.	1	2	3	4	5	
b) I would be trying to protect myself.	1	2	3	4	5	
c) I would be trying to take care of my skinned knees.	1	2	3	4	5	
d) I would be trying to stay away from the other boy.	1	2	3	4	5	
e) I would be trying to work things out peacefully.	1	2	3	4	5	
f) I would be trying to still get along with the boy.	1	2	3	4	5	
g) I would be trying to look strong and make sure the other boy didn't think I was a wimp.	1	2	3	4	5	
h) I would be trying to get back at the other boy.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree			Really Agree		
a) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
b) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	
c) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
d) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	
e) I would be good at protecting myself if I tried.	1	2	3	4	5	
f) I would be good at taking care of my skinned knees if I tried.	1	2	3	4	5	
g) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	
h) I would be good at working things out peacefully if I tried.	1	2	3	4	5	

Imagine that you brought your new radio to school today. You saved up your allowance to buy the radio and you want to show it to the other kids at school. You let another boy play with it for a few minutes while you go get a drink of water. When you get back you realize that the boy has broken your brand new radio.

1. What would you be trying to do?

	Really Disagree			Really Agree		
a) I would be trying to get back at the other boy.	1	2	3	4	5	
b) I would be trying to work things out peacefully.	1	2	3	4	5	
c) I would be trying to stay away from the other boy.	1	2	3	4	5	
d) I would be trying to make the other boy feel bad.	1	2	3	4	5	
e) I would be trying to protect myself.	1	2	3	4	5	
f) I would be trying to take care of my fixing my radio.	1	2	3	4	5	
g) I would be trying to still get along with the boy.	1	2	3	4	5	
h) I would be trying to look strong and make sure the other boy didn't think I was a wimp.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree			Really Agree		
a) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
b) I would be good at working things out peacefully if I tried.	1	2	3	4	5	
c) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	
d) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	
e) I would be good at protecting myself if I tried.	1	2	3	4	5	
f) I would be good at taking care of fixing my radio if I tried.	1	2	3	4	5	
g) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
h) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	

Imagine you're in the lunchroom, you've just gotten your tray and you're walking to a table. Suddenly, another boy bumps into your arm and you drop your tray. Your food is spilled all over the floor.

1. What would you be trying to do?

	Really Disagree			Really Agree		
a) I would be trying to stay away from the other boy.	1	2	3	4	5	
b) I would be trying to make the other boy feel bad.	1	2	3	4	5	
c) I would be trying to get back at the other boy.	1	2	3	4	5	
d) I would be trying to look strong and make sure the other boy didn't think I was a wimp.	1	2	3	4	5	
e) I would be trying to protect myself.	1	2	3	4	5	
f) I would be trying to take care of my ruined lunch.	1	2	3	4	5	
g) I would be trying to still get along with the boy.	1	2	3	4	5	
h) I would be trying to work things out peacefully.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree			Really Agree		
a) I would be good at taking care of my ruined lunch if I tried.	1	2	3	4	5	
b) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
c) I would be good at working things out peacefully if I tried.	1	2	3	4	5	
d) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
e) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	
f) I would be good at protecting myself if I tried.	1	2	3	4	5	
g) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	
h) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	

Imagine that you are beside a water fountain waiting to get a drink. There is another boy taking his turn at the fountain. The next thing you know, the boy has splashed some water on your face.

1. What would you be trying to do?

	Really Disagree				Really Agree	
	1	2	3	4	5	
a) I would be trying to look strong and make sure the other boy didn't think I was a wimp.						
b) I would be trying to get back at the other boy.	1	2	3	4	5	
c) I would be trying to work things out peacefully.	1	2	3	4	5	
d) I would be trying to protect myself.	1	2	3	4	5	
e) I would be trying to make the other boy feel bad.	1	2	3	4	5	
f) I would be trying to still get along with the boy.	1	2	3	4	5	
g) I would be trying to take care of drying off.	1	2	3	4	5	
h) I would be trying to stay away from the other boy.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree				Really Agree	
	1	2	3	4	5	
a) I would be good at taking care of drying off if I tried.						
b) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
c) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	
d) I would be good at protecting myself if I tried.	1	2	3	4	5	
e) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	
f) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
g) I would be good at working things out peacefully if I tried.	1	2	3	4	5	
h) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	

Imagine that you are working on a math assignment at your desk. You go to sharpen your pencil, as you walk back to your desk there's a boy walking just in front of you. The boy passes your desk before you get there. The next thing you know, the boy has knocked all of your papers off of your desk all over the floor.

1. What would you be trying to do?

	Really Disagree			Really Agree		
a) I would be trying to get back at the other boy.	1	2	3	4	5	
b) I would be trying to work things out peacefully.	1	2	3	4	5	
c) I would be trying to stay away from the other boy.	1	2	3	4	5	
d) I would be trying to make the other boy feel bad.	1	2	3	4	5	
e) I would be trying to protect myself.	1	2	3	4	5	
f) I would be trying to take care of my papers.	1	2	3	4	5	
g) I would be trying to still get along with the boy.	1	2	3	4	5	
h) I would be trying to look strong and make sure the other boy didn't think I was a wimp.	1	2	3	4	5	

2. Below is a list of things kids have said that they might try to do. Please tell me if you think you would be good at doing each of these things

	Really Disagree			Really Agree		
a) I would be good at getting back at that boy if I tried.	1	2	3	4	5	
b) I would be good at working things out peacefully if I tried.	1	2	3	4	5	
c) I would be good at staying away from the boy in the future if I tried.	1	2	3	4	5	
d) I would be good at making the other boy feel bad if I tried.	1	2	3	4	5	
e) I would be good at protecting myself if I tried.	1	2	3	4	5	
f) I would be good at taking care of my papers if I tried.	1	2	3	4	5	
g) I would be good at still getting along with the boy if I tried.	1	2	3	4	5	
h) I would be good at looking strong and making sure the other boy doesn't think I'm a wimp if I tried.	1	2	3	4	5	

Things That Happen to Me

Instructions: You will be reading several stories. Pretend that the things that are happening in each story are happening to you. Then answer the questions after each story.

You are on the playground at recess. Some boys you do not know are playing an interesting game. You would like to play. When you go over and ask them if you can join in, they say "yes".

1. How often does this sort of thing happen to you?

1-----2-----3-----4
Almost Just once Often Very
never in a while often

2. When those boys let you join their game, would it make you wonder?

	Not at all		Somewhat		Yes, very much
a) Am I good at making friends?	1	2	3	4	5
b) Are they just in a good mood?	1	2	3	4	5
c) Do these kids and I just get along with each other?	1	2	3	4	5
d) Am I a likable person?	1	2	3	4	5
e) Are they always like this?	1	2	3	4	5
f) Did I ask to join just as they began to play their game?	1	2	3	4	5
g) Did I try hard enough to join their game?	1	2	3	4	5

3. Is getting others to let you join their games a thing you can do something about?

1-----2-----3
I could do I could do I could do
nothing something a lot

4. How would you feel if this had really happened to you (choose as many as you want)?

☐ Mad
☐ Sad
☐ Happy | ☐ Surprised
☐ It wouldn't matter to me |
|--|---|

Imagine that you are in the lunchroom. You've just gotten your food and are walking toward a table of boys. You're about to sit down when they say, "You can't sit here!"

1. How often does this sort of thing happen to you?

1-----	2-----	3-----	4-----
Almost never	Just once in a while	Often	Very often

2. When the other kids say that you can't sit with them, would it make you wonder?

	Not at all		Somewhat		Yes, very much
a) Are they always like this?	1	2	3	4	5
b) Did I not try hard enough to join them?	1	2	3	4	5
c) Am I a likable person?	1	2	3	4	5
d) Are those kids and I just too different from each other?	1	2	3	4	5
e) Are they just in a bad mood?	1	2	3	4	5
f) Am I not so good at making friends?	1	2	3	4	5
g) Did they save that seat for another kid just as I went over?	1	2	3	4	5

3. Is getting others to let you join in their group of friends for lunch a thing you can do something about?

1-----	2-----	3-----
I could do nothing	I could do something	I could do a lot

4. How would you feel if this had really happened to you (choose as many as you want)?

☐ Mad	☐ Surprised
☐ Sad	☐ It wouldn't matter to me
☐ Happy	

Imagine that you have just moved to a new neighborhood. You meet another boy your age who lives near you. He seems to like you, and asks you to join his group of friends.

1. How often does this sort of thing happen to you?

1-----2-----3-----4
 Almost Just once Often Very
 never in a while often

2. What would you think when the kid in your new neighborhood asks you to join his group of friends?

	Not at all		Somewhat		Yes, very much
a) Am I good at making friends?	1	2	3	4	5
b) Did I try hard enough to get him to like me?	1	2	3	4	5
c) Is he just in a good mood?	1	2	3	4	5
d) Do he and I just like get along with each other?	1	2	3	4	5
e) Am I a likable person?	1	2	3	4	5
f) Did I move just when he wanted someone to join his group of friends?	1	2	3	4	5
g) Is he always like this?	1	2	3	4	5

3. Is getting others to let you join in their group of friends a thing you can do something about?

1-----2-----3
 I could do I could do I could do
 nothing something a lot

4. How would you feel if this had really happened to you (choose as many as you want)?

☐ Mad	☐ Surprised
☐ Sad	☐ It wouldn't matter to me
☐ Happy	

Imagine that you are at school. Another boy brings in a CD of a band that you like. During recess, you ask to listen to the CD. He tells you "There's no way, I'll let you listen".

1. How often does this sort of thing happen to you?

1-----2-----3-----4
 Almost Just once Often Very
 never in a while often

2. What would you think when the other kid said you couldn't listen to the CD?

	Not at all		Somewhat		Yes, very much
a) Am I a likable person?	1	2	3	4	5
b) Are he and I just too different from each other?	1	2	3	4	5
c) Is he just in a bad mood?	1	2	3	4	5
d) Am I not so good at making friends?	1	2	3	4	5
e) Did I ask after he had already lent it out to another kid?	1	2	3	4	5
f) Did I not try hard enough to get him to lend me his CD?	1	2	3	4	5
g) Is he always like this?	1	2	3	4	5

3. Is getting others to let you join their games at recess a thing you can do something about?

1-----2-----3
 I could do I could do I could do
 nothing something a lot

4. How would you feel if this had really happened to you (choose as many as you want)?

☐ Mad	☐ Surprised
☐ Sad	☐ It wouldn't matter to me
☐ Happy	

Imagine that you are at school. A group of boys is whispering together about something. You go over and ask what they are saying. They tell you about a secret they heard about another kid.

1. How often does this sort of thing happen to you?

1-----2-----3-----4
 Almost Just once Often Very
 never in a while often

2. What would you think when the other kids let you in on their secret?

	Not at all		Somewhat		Yes, very much
a) Did I come over just as they were telling their secret?	1	2	3	4	5
b) Am I a likable person?	1	2	3	4	5
c) Do those kids and I just get along with each other?	1	2	3	4	5
d) Are they just in a good mood?	1	2	3	4	5
e) Am I good at making friends?	1	2	3	4	5
f) Are they always like this?	1	2	3	4	5
g) Did I try hard enough to get them to tell me?	1	2	3	4	5

3. Is getting others to let you in on their secrets a thing you can do something about?

1-----2-----3
 I could do I could do I could do
 nothing something a lot

4. How would you feel if this had really happened to you (choose as many as you want)?

☐ Mad	☐ Surprised
☐ Sad	☐ It wouldn't matter to me
☐ Happy	

Imagine that you are in the classroom. The teacher asks you to divide into groups to complete an art project. You notice that some boys sitting around you are getting together. When you move over to join them they say, "We don't want you in our group!"

1. How often does this sort of thing happen to you?

1-----2-----3-----4
 Almost Just once Often Very
 never in a while often

2. When the other kids didn't let you join their group, would it make you wonder:?

	Not at all		Somewhat		Yes, very much
a) Am I a likable person?	1	2	3	4	5
b) Am I not so good at making friends?	1	2	3	4	5
c) Are those kids and I just too different from each other?	1	2	3	4	5
d) Did I not try hard enough to join their group?	1	2	3	4	5
e) Are they just in a bad mood?	1	2	3	4	5
f) Are they always like this?	1	2	3	4	5
g) Did I come after they had enough people for their group?	1	2	3	4	5

3. Is getting others to let you join their group in class a thing you can do something about (circle one)?

1-----2-----3
 I could do I could do I could do
 nothing something a lot

4. How would you feel if this had really happened to you (choose as many as you want)?

☐ Mad	☐ Surprised
☐ Sad	☐ It wouldn't matter to me
☐ Happy	

Imagine that a boy from your class is having a party. He is not part of your group of friends so you don't expect to be invited, but he asks you to come.

1. How often does this sort of thing happen to you?

1-----2-----3-----4
 Almost Just once Often Very
 never in a while often

2. What would you think when the other boy invites you to the party?

	Not at all		Somewhat	Yes, very much	
a) Is he always like this?	1	2	3	4	5
b) Am I a likable person?	1	2	3	4	5
c) Is he just in a good mood?	1	2	3	4	5
d) Did he just need another person to come and I just there at the right time?	1	2	3	4	5
e) Do he and I just get along with each other?	1	2	3	4	5
f) Am I good at making friends?	1	2	3	4	5
g) Did I try hard enough to get him to invite me?	1	2	3	4	5

3. Is getting others to invite you to their party a thing you can do something about?

1-----2-----3
 I could do I could do I could do
 nothing something a lot

4. How would you feel if this had really happened to you (choose as many as you want)?

☐ Mad	☐ Surprised
☐ Sad	☐ It wouldn't matter to me
☐ Happy	

During some free time in class, you notice that another boy is playing on the computer. You walk over to join in and he says "Hey, I didn't ask you!"

1. How often does this sort of thing happen to you?

1-----2-----3-----4
 Almost Just once Often Very
 never in a while often

2. What would you think when the other kid wouldn't let you play on the computer?

	Not at all		Somewhat	Yes, very much	
a) Am I a likable person?	1	2	3	4	5
b) Am I not so good at making friends?	1	2	3	4	5
c) Are he and I just too different from each other?	1	2	3	4	5
d) Did I not try hard enough to join in?	1	2	3	4	5
e) Is he just in a bad mood?	1	2	3	4	5
f) Is he always like this?	1	2	3	4	5
g) Did I come after he had already begun to play his game?	1	2	3	4	5

3. Is getting others to let you join in their games a thing you can do something about?

1-----2-----3
 I could do I could do I could do
 nothing something a lot

4. How would you feel if this had really happened to you (choose as many as you want)?

☐ Mad	☐ Surprised
☐ Sad	☐ It wouldn't matter to me
☐ Happy	

Appendix D. Verbal and Written Debriefing

Session One and Two Verbal Debriefing for Children

Thank you very much for your help today. Your answers to the questions I've asked today will help us to understand how kids like you think when they have problems to solve with other kids. This is important because some kids are really good at thinking about problems, but others are not. With your help, we will now be able to think of ways to help kids who find it hard to solve problems with other kids.

You have all done a great job! Before you go, I would like to remind you about the word "confidentiality". This means that I won't share your answers to these questions with your teachers, or parents or other kids in your class. It also means that you need to keep your answers to yourself, and not share them with the other kids.

If you want to talk to someone about the questions you were asked today, or you feel that you are having problems with other kids please talk to your parents or teacher about it.

Dear Parents

We would like to take this opportunity to thank you for your participation in this study exploring how children think about what happens when they interact with others. We know that how children think affects how they act. However, we know very little about how children who find interacting with others more difficult think about their social situations. The present study was designed to explore the relation between how children interact with others and their thoughts and feelings about social interaction. For instance, children who avoid social situations may see the world as a hostile place and may react by pulling away from interactions with others. Discovery of patterns in the way that children think about social situations is crucial.

In a few months, a preliminary report will be sent to you child's school. Within the year a final report will be prepared and distributed. Should you have any ethical concerns with regard to this study, please feel free to contact Dr. Gick (Chair of the Department of Psychology Ethics Committee, 520-2600, ext. 2664), or Dr. Matheson (Chair, Department of Psychology, 520-2600, ext. 2548). Should you have any further questions regarding this study, feel free to contact us at the numbers listed below. Should you have any questions or concerns regarding your own child please contact the School psychologist _____ at _____, Dr. Daniels or Dr. Coplan.

Once again, thank you for your participation.

Sincerely,

Cherami Wichmann
277-0810

Dr. Robert Coplan
520-2600 ext. 8691

Dr. Tina Daniels
520-2600 ext. 2686