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Influences of Age and Gender on Children's Differential Processing of Information About Passive Withdrawal versus Active Withdrawal

Sepideh Zargarpour

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ABSTRACT

Influences of Age and Gender on Children's Differential Processing of Information About Passive Withdrawal versus Active Withdrawal

Sepideh Zargarpour

This study was conducted to examine age and gender differences in children's processing of information about Active Withdrawal (AW) and Passive Withdrawal (PW) (Rubin & Mills, 1988; Younger & Daniels, 1992) in peers. The accessibility (c.f., Higgins & Wells, 1986) of children's schemas for AW and PW was examined through a reaction time paradigm and the distinctiveness of the two constructs was examined through a matching paradigm.

The sample included 36 first- and 36 fifth-graders, with an equal number of boys and girls in each grade. The results indicated that the gender of both the subject and of the hypothetical withdrawn peer were important variables for the accessibility of the PW schema, but not for the AW schema. It appears that the schema for PW is more accessible to subjects, especially to female subjects, when the withdrawn peer is female. Gender of the subject also influenced the likability of Active Withdrawn and Passive Withdrawn peers, such that the Passive Withdrawn peer was more preferred than the Active Withdrawn peer by girls than by boys. With regards to the distinctiveness of the two constructs, both first- and fifth graders showed some differentiation between AW and PW, but the older children differentiated to a greater extent and had more well developed schemas.

The results are discussed in terms of the possible effects of such apparent biases on children's responses to the Revised Class Play (Masten, Morison, & Pellegrini, 1985), on children's peer relations, such as by the maintenance of reputational biases (c.f., Hymel, 1986), on children's gender stereotyping (Gelman, Collman, Maccoby, 1986), and on the

differential social development of Active versus Passive Withdrawn Peers (Rubin, in press; Younger, Schneider, & Daniels, 1991).

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I dedicate this thesis to my parents and husband,

with all my love.

Ye are the fruits of one tree,

and the leaves of one branch.

Deal ye one with another with the utmost

love and harmony, with friendliness and fellowship....

So Powerful is the Light of Unity

That it can Illuminate the Whole Earth.

-Baha'u'llah

INTRODUCTION

"Social schemata" have been identified by researchers in the area of impression formation as playing an important role in determining people's perceptions, memory, and inferences about others (e.g., Cantor & Mischel, 1977; Higgins & Bargh, 1987; Higgins & Wells, 1986). The subject of study in impression formation deals with how individuals form and use impressions of others (Fiske & Taylor, 1984). One aspect of research in this area has been the type of memory representation that is produced when individuals encounter a series of trait-descriptive adjectives or propositions about others. According to the schema model (e.g., Cantor & Mischel, 1977; Srull & Wyer, 1989), when individuals repeatedly encounter examples of category members or encounter a series of trait-related behaviours that cluster together, "prototypes" (Rosch, 1978) of typical others are formed. These prototypes then enable perceivers to categorize persons on the basis of particular attributes and to infer similarity on other attributes (Cantor & Mischel, 1977; Fiske & Taylor, 1984). Social perception can, thus, be said to be largely guided by social schemata (Taylor & Crocker, 1981).

According to the theory and research in this area, the mature schemata that are used by adults and experts are more abstract and complex, and better organized and differentiated than the schemata of younger children (e.g., Gelman, Collman, & Maccoby, 1986; Younger & Boyko, 1987) and novices (e.g., Chase & Simon, 1973). These qualities of more mature schemata are believed to reduce cognitive complexity such that the encoding, storage, and retrieval of schema-consistent information, as well as, the making of inductive and inferential decisions about others may be made more quickly, if not more accurately (Fiske et al., 1984; Hymel, Wagner & Butler, 1990; Taylor & Crocker, 1981). Accordingly, some researchers in the area of impression formation have turned to response latency (reaction-time) paradigms as a way of measuring the ease or rapidity with which

individuals make judgments regarding schema-consistent versus schema-inconsistent information (e.g., Diller, 1971 in Posner, 1978; Cantor & Mischel, 1977; Markus, 1977).

A recent finding in social developmental research, focusing on children's understanding of social constructs, has been that children's use of social schemata to process information about the behavior of peers is not consistent across content domains. In particular, children's schemata for aggression seem to develop faster and to play a more dominant role in peer perception than their schemata for withdrawn peers (e.g., Younger & Boyko, 1987; Younger & Piccinin, 1989).

Few studies have, until recently, focused on children's schemata for "Social Withdrawal." One important advancement in research on children's understanding of social withdrawal has been Rubin and Mills' (1988) proposal that there may be two distinct forms of this construct, as defined by the Revised Class Play (RCP) method of peer nomination (Masten, Morison, & Pellegrini, 1985), namely "Passive Withdrawal" (PW) and "Active Withdrawal" (AW). The term Active Withdrawal is said to represent children who tend to be left out by their peer group, cannot get others to listen to them, and have trouble making friends; whereas the term Passive Withdrawal is said to represent children who tend to be shy, whose feelings get hurt easily and who would rather play alone than with others.

The broad focus of this thesis is on children's understanding of the constructs of Active Withdrawal and Passive Withdrawal. Our purpose was to investigate the manner in which the properties of children's schemata, such as schema accessibility and availability (c.f., Higgins & Wells, 1986) for these constructs, may be biasing their responses on peer nominations techniques, particularly on the RCP. A reaction time paradigm (c.f., Posner, 1978) was used to assess schema accessibility and a matching paradigm was used to study the children's ability to differentiate between these two constructs.

The particular goal of this study was to examine age and gender differences in children's processing of information about these two types of social withdrawal. Several questions were addressed: a) Whether the schemata underlying children's perceptions of socially withdrawn peers match Rubin and Mill's division of this construct into Active Withdrawal and Passive Withdrawal, b) whether the availability and accessibility of children's schemata for AW and PW differ developmentally and how they affect children's expectations, c) how children's schemata for Active and Passive Withdrawal are affected by gender schemata, as well as, d) whether active and passive withdrawn children are differentially liked by their peers.

Before entering into more detail about the study with which this thesis is concerned, an overview of the main lines of research in the field of social perception is presented. We will first focus on the definition, function, and aspects of schemata in general, and of social- and self-schemata in particular. We will then examine research related to children's use of social schemata and, more specifically, discuss their use of schemata for aggression versus social withdrawal. Next, we will examine some of the definitions of social withdrawal, as well as, the implications of social withdrawal for children's social development. Finally, we will turn to research supporting the division of the construct of social withdrawal into Active and Passive Withdrawal.

"Schemata": Theoretical Background

Cognitive researchers have proposed a useful taxonomy for categorizing different classes of cognitive constructs (e.g., Kendall & Ingram, 1987; Ingram & Kendall, 1987). Accordingly, "cognition" has been conceptually divided into four main components: cognitive structure, cognitive propositions (content), cognitive operations and cognitive products. Cognitive *structure* refers to the mechanisms that organize information or to how the individual represents the information internally. For example, information that is stored in long- or short-term memory seems to be organized by cognitive networks, that is,

by linkages and associations among the stored memories. Cognitive *propositions* refer to the content or information that is represented within the cognitive structure. Cognitive *operations* refer to the processes by which information is encoded, stored, and retrieved. The final category, cognitive *products* , refer to end results of cognitive schemata and operations, such as thoughts, feelings, ideas and self-evaluations (see also Eysenck, 1984). Viewed from this perspective, schemata are constructs that arise from the combination of structure and content (Kendall & Ingram, 1987).

Schema "Accessibility" versus Schema "Availability"

Two characteristics of schemata that, to a large extent, determine the degree of influence of schemata on perceptual and cognitive processes are schema accessibility and schema availability (Higgins & Wells, 1986). Schema *accessibility* refers to the readiness with which a stored construct is retrieved from memory and/or utilized in information processing, whereas schema *availability* refers to whether or not a construct is stored or present in memory (Higgins & Wells, 1986).

According to Srull and Wyer (1989), when a perceiver has already acquired specific expectancies about someone, trait concepts associated with these expectancies are likely to be activated at the time the behavioural information is acquired. That is, perceivers will tend to encode a person's behaviour in terms of whatever applicable trait concepts are most accessible. For example, if a perceiver has been led to expect that a person is socially withdrawn, and if the perceiver possesses a schema of "social withdrawal," then behaviours of the perceived may be encoded in terms of their strength of association to the construct of "social withdrawal."

A number of ways have been outlined by which available constructs may become more accessible. Higgins and King (1981), for example, have pointed out six factors that increase construct accessibility, five of these include recent activation, frequent activation, expectations, salience and motivation (c.f. Higgins & Wells, 1986). The recent activation

of a schema is also referred to as the "Priming Effect." One account of the priming effect holds that activating a schema places it at the top of the mental heap, displacing others downward (Srull & Wyer, 1979). A trait concept, for example, becomes more accessible in memory immediately after it has been used, such that the concept is temporarily more likely to be used again to interpret new information and more likely to affect judgments based on this information (Srull & Wyer, 1989). In other words, in the selection of a person schema to apply to the interpretation of new information, those recently activated will tend to be more accessible.

Srull and Wyer (1979), for example, found that priming trait concepts *before* subjects read stimulus information had substantial effects on subjects' later judgments, whereas, exposing the subjects to the trait concepts *after* having read the stimulus information had no effect at all on their judgments (c.f Srull & Wyer, 1989). These findings were taken to suggest that "behaviours are spontaneously interpreted in terms of whatever trait concepts are most accessible in memory at the time behaviours are first learned" (Srull & Wyer,1989, p. 66).

The frequent activation of a schema also increases its accessibility. As Fiske & Taylor (1984) have noted, "a frequently used schema is, in a sense, permanently primed" (p. 176). Viewed from a social developmental perspective, one may presume that as children increasingly gain social experience with age, the more frequently will their schemata be activated. Accordingly, older children should have a greater number of social schemata readily accessible to them than younger children. Affect, motivation, and observational purposes can also activate available schemata. For example, being asked to form an impression of another person, to memorize his/her actions, or to predict his/her behaviour, as well as, being told in advance that another person will either have a negative or positive impact on our reaching important goals (Srull & Wyer, 1989; Fiske & Taylor, 1984) can likely lead to the activation of relevant schemata.

Schema *differentiation* is a further component of construct availability. When applied to trait concepts, it refers to the extent to which people can differentiate among a variety of trait constructs, the beliefs people hold regarding the frequency of different trait-related behaviours, as well as their beliefs regarding the commonality of different traits (Higgins & Wells, 1986). Looking at trait-differentiation from a developmental perspective, we can infer that as information about the social world becomes increasingly available to children, they begin to learn about a variety of trait-related behaviours, about the general frequency which different trait-related behaviours are performed, and about individual differences in the disposition to perform different trait-related behaviours (Higgins & Wells, 1986). Higgins and colleagues have reported, for example, that Kindergartners' trait constructs tend to be far less varied than those of undergraduates' (c.f Higgins & Wells, 1986).

According to Srull and Wyer's model of trait differentiation (1989), trait-behaviour clusters are formed when people encode a set of behaviours in terms of trait concepts. Traits are differentiated from one another only when each cluster is stored in memory as a "separate unit(s) of knowledge" (pp. 66). Combining the research findings on the priming effect with those on trait differentiation, one might, therefore, expect that if a particular trait concept is primed, behaviours exemplifying that given trait should be more easily recalled if the trait concept is available, accessible, and differentiated from other traits, than if it is not.

Social Schemata

Cantor and Mischel (1977) were among the first to apply schema theory to social constructs. These researchers argued that certain personality categories (such as extroversion and introversion) can act as prototypes and, therefore, serve to organize our impressions of others. According to their model prototypes of specific or typical others, also referred to as person or social schemata, not only provide perceivers with information

about the attributes, traits, and behaviours of others, but also contain information about how these attributes are related to one another (also see Fiske & Neuberg, 1990; Taylor & Crocker, 1981 re: schemata).

A social role schemata, for example, is a cognitive structure that organizes one's knowledge regarding those appropriate norms and behaviours associated with a social position, such as the norms and behaviours associated with the elderly versus children, with the "white" versus the "black" race, or with males versus females. Social schemata, thus, enable perceivers to categorize stimuli on the basis of some attributes and infer similarity on other objectively unrelated attributes (Fiske & Taylor, 1984). Utilizing one's schema for the "athletic type," for example, one might expect an "athletic" person to be health conscious, to perfer casual clothing over formal wear, and to be popular among his or her peers.

Cantor and Mischel's model (1977), therefore, clearly suggests that social schemata influence how we process information about others. Much of the research that has since followed has supported the theory that perceivers do not merely store concrete items of information about objects and people, but also store a more abstract, prototypic, representation in the form of schemata (Fiske & Taylor, 1984). Much like schemata for non-social categories (see Rosch, 1978), the prototypic representation of social categories is believed to help reduce cognitive complexity of the stimulus world, to free up processing capacity, and to enable perceivers to learn and remember information by actively categorizing or coding the input according to well-learned conceptual schemata (Cantor & Mischel, 1977; Hamilton, 1979).

Perception, memory, and inferences are, thus, thought to be largely influenced by the social category to which individuals are assigned. Studies have illustrated, for example, that social information for which a perceiver possesses no well-defined schema tends to be less attended to, less readily encoded into memory, not as easily recalled, and

less capable of generating inferences (Cantor & Mischel, 1977; Fiske & Taylor, 1984; Higgins & Bargh, 1987; Ruble & Ruble, 1982; Taylor & Crocker, 1981) and vice versa. In the case of formation of stereotypes, for example, it is possible that people who believe in certain stereotypes may in fact code the world in such a way that they are more likely to notice, retain, and interpret instances that confirm their hypotheses (Hamilton, 1979). For example, upon being told that a certain girl is "aggressive," a perceiver might *notice* and *remember* her "aggressive" behaviour, *interpret* her assertiveness as having been "aggressive," and even make several *inferences* about her, such as that she must be a tomboy.

Self-Schemata

Markus has advanced related ideas in the area of self-perception (e.g., Markus, 1977; Markus & Wurf, 1987). She has suggested that self-schemata are cognitive generalizations about the self that guide the processing of information about the self. These self-descriptions are relevant to the person only insofar as they fit into self-schemata.

In one of her influential and innovative studies (Markus, 1977), Markus asked subjects to rate themselves on independence and dependence, and classified those who rated themselves extremely, and who felt that the scales were important, as having a self-schema for either independence or dependence. She then asked subjects to rate whether certain traits were descriptive of themselves and measured the latency (reaction time) to respond to each item. She found that subjects with the self-schemata were much quicker in making judgments for traits that were related to the schemata, whereas there were no important differences for those without self-schemata in these areas. Subjects were also asked to give behavioural examples for traits relevant to the schemata. Again, those with a self-schema could more readily provide examples for traits relevant to the schema. Markus' study, thus, not only demonstrated that information which is consistent with one's self-schema seems to be encoded and recalled more easily, but also that well-

developed schemata were able to generate inferences at a faster rate than less-developed or nonexistant ones.

Schema "Maturity"

Whether dealing with social- or self-schemata, mature or well-developed schemata have been distinguished from less mature ones on the dimensions of abstractness, complexity, organization and differentiation. Mature schemata are theorized to be more abstract, complex, organized, and differentiated than the less mature ones. These qualities of well-developed schemata are, in turn, believed to enable perceivers to understand, encode, store and retrieve information, as well as to make schema-relevant inferences better and faster (Cantor & Mischel, 1977; Fiske & Taylor, 1984; Hymel et al., 1990; Taylor & Crocker, 1981).

According to some theorists, the more often one encounters schema-relevant examples, the more abstract and complex a schema becomes (Abelson, 1976; Linville, 1982). The *abstract* quality of schemata allows us to go beyond our knowledge of individual exemplars and enables us to infer new, previously unknown, identities and nonobvious properties (Hymel et al., 1990). Indeed, one of the primary functions of categories is to promote the making of inferences (Fiske & Neuberg, 1990; Fiske & Taylor,1984; Hymel et al., 1990). The *complexity* of mature schemata, on the other hand, refers to the number of dimensions that describe schematic content; while their more *organized* quality alludes to the number and structure of links among schematic contents (Fiske & Taylor, 1984).

Experts, for example master chess players (e.g., Chase & Simon, 1973) and self-schematics (e.g., Markus, 1977), are assumed to have schemata which contain large, complex, and well-integrated chunks of information. "Novices" and aschematics, on the other hand, are assumed to have schemata that contain several discrete items of information that have not yet been well-organized and which lack complexity and abstractness. The

mature qualities of the schemata of experts and self-schematics tend to increase the efficiency for making familiar judgments and for retrieving routine information (Sentis & Burnstein, 1979); such that, experts and self-schematics remember schema-relevant things faster, and can more quickly access a greater amount of information to back up their judgments or decisions than novices or aschematics.

Effects of Schema Maturity on Memory

From the above discussion, we can see that in addition to the effect of schemata on perception and inference-making, mature schemata are considered to have an important impact on memory processes. On the one hand, schemata influence the *encoding* stage of memory by providing a framework into which schema-relevant information can more readily be assimilated (Cantor & Mischel, 1977). On the other hand, schemata are thought to aid the *retrieval* stage either by serving as cues for reconstructing previously presented information (Snyder & Uranowitz, 1978) or by eliciting schema-congruent guessing in the absence of memory of actual cases (Cantor & Mischel, 1977). As a consequence of the above processes, memory for schema-relevant information can often be retrieved more rapidly than memory for information that is irrelevant to that schema. Consequently, familiar schematic judgments can be made more quickly than less familiar ones (Wyer, Bodenhausen, & Srull, 1984). Relating the above discussion to social-cognitive developmental theory, it may be inferred that with increasing age and social experience children's use of social schemata will exhibit more of these mature qualities.

Use of Reaction Time Paradigms

Some researchers in the area of impression formation (e.g., Diller, 1971 in Posner, 1978; Markus, 1977) have, accordingly, turned to reaction time or response latency paradigms in order to measure the rapidity and ease with which individuals make judgements based on schema-relevant and schema-irrelevant information.. The assumption underlying the use of reaction time (RT) as a dependent variable in studying

what Donders (1868) called "speed of mental operations," or the speed of internal cognitive processes (Jackson, 1990), is that mental operations can be measured in terms of the time they require. Accordingly, researchers have assumed that judgements requiring more conscious effort, such as those based on increasingly schema-inconsistent information, take more time than those requiring less conscious effort, such as those based on schema-consistent information.

In one of the early experiments in this area, Dillers (1971, in Posner, 1978) presented subjects with two trait-descriptive adjectives separated in time. When the second adjective was received, they were to combine and rate the overall impression created by the two adjectives. The extent to which the two adjectives were consistent with each other was varied. While Dillers did not relate his findings in terms of schemata, he found that the time taken by subjects to make judgements based on consistent traits was shorter than those based on inconsistent traits. Increasing amounts of conscious effort seemed to be involved as the discrepancy between adjectives that had to be combined by the subject producing the impression increased.

Social Developmental Research: Children's use of Schemata

Dispositional versus Non-Dispositional Categorization

More recently, social developmental researchers have shown growing interest in the use and development of social schemata by children, such as for gender (eg. Berndt & Heller, 1986; Gelman & Markman, 1985, in Gelman, Collman, & Maccoby, 1986) and for dispositional or trait-like categorizations (eg. Bukowski, 1990; Rholes & Ruble, 1984; Younger & Boyko, 1987; Younger, Schwartzman, & Ledingham, 1985). For example, research has indicated that object and non-dispositional categorization, mainly due to the concrete quality of the stimuli involved, appear at an earlier stage in children's cognitive development than do social and dispositional categorization (Flavell, 1985). It is only with age that children are increasingly able to conceptualize others in terms of more abstract,

dispositional or trait-like characterizations (Rholes & Ruble,1984). That is, according to some researchers, younger children do not typically describe or evaluate the behaviours of others in terms of stable patterns of behaviour and personality characteristics, but rather tend to rely on appearance, group membership and other non-dispositional factors (Rholes & Ruble, 1984; Shantz, 1983). Social cognitive changes emerging somewhere between five to ten years of age (c.f., Rholes, Jones, & Wade, 1988; Rholes & Ruble, 1984) permit children to use observations of dispositionally related behaviours as a base to understanding and evaluating others in terms of dispositions.

Nonetheless, research on preschoolers has shown that children as young as four to five years of age can overlook appearances when drawing inferences on the basis of category membership, presumably by expecting category members to share non-obvious properties (Gelman et al., 1986). Gelman and her colleagues have shown that preschoolers are able to infer properties from categories, such as gender, and seem to expect that a "subject's category provides a fundamental clue to its behaviour and internal structure" (cf. Gelman et al., 1986, p. 397).

The "How" of Schema Development

While a large part of social developmental and social cognitive research has been descriptive, an important effort has also been made to understand the "how" and the "why" of schema development (e.g., Higgins & Wells, 1986). According to Sullivan (1953), for example, the speed with which children are exposed to people of different types, especially once they enter preschool and elementary school, would make it difficult for them not to create classification systems and social schemata for people. Higgins and Wells (1986) have made a similar argument, claiming that "age-related changes in social life phases affect both availability and accessibility of social constructs that are used in making social judgments and inferences" (1986, p. 205). In other words, changes in children's social agents, activities, tasks, social positions and roles, social relationships, motives, and so

on, which come about as a result of growing up, affect, if not lead to, developmental changes in social concepts.

Relevance of Schema Theory to Peer Nomination Techniques

The theories and findings mentioned above, regarding the role of social schemata in social information processing, the characteristics and consequences of mature versus less mature schema, as well as the distinction between schema accessibility and schema availability, may have important practical and theoretical implications for research in the field of children's peer relations. Over the past two decades, investigators in the field of children's peer relations and social developmental research have made frequent use of children as assessors of social maladjustment in their peers. Peer evaluation measures such as the Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub, & Neale, 1976) and the Revised Class Play (RCP; Masten, Morison, & Pellegrini, 1985), for example, have been frequently used in the identification of aggressive, prosociable and social withdrawn children and adolescents.

The Revised Class Play (Masten, et al., 1985), is most commonly administered by asking children to nominate up to three classmates who would best fit each of 30 behavioural descriptors. This method of administration differs from Masten and colleagues' (1985) original proposal that one boy and one girl be nominated for each item. These nominations are then used to compute each of three factor scores for each child following procedures outlined by Masten et al. (1985); the factors being (1) Sociability-Leadership (e.g., "Helps other people when they need it"), (2) Aggression-Disruption (e.g., "Teases other kids too much"), and (3) Sensitivity-Isolation (e.g., "Often left out"). For each summary score, the number of nominations received by each child is then standardized through z-score transformations, within classroom and sex, to permit appropriate comparisons. Higher scores are taken to indicate stronger peer perceptions of the identified behaviour in each case.

As Younger, Daniels, and Gentile (1989) (see also Bukowski, 1990; Younger, Schneider, & Daniels, 1991) have pointed out, however, peer nomination techniques, such as the RCP, rely to a large extent on children's recall of certain behaviours exhibited by their peers, as well as, on their ability to predict their peers' future behaviour. These researchers have argued that children's abilities to accurately recall and make inferences about their peers may, accordingly, be influenced by factors affecting children's schemata, such as by age, sex, and the sociometric status of peers. While Younger and colleagues have not delineated elements within schemata which may be related to such sex and age differences, as well as affective biases toward children of different sociometric status, it is conceivable that these differences may be related to variations in the availability and accessibility of children's schemata for the behavioural or trait constructs involved.

Aggression versus Social Withdrawal: Definitions and Consequences

Aggression and social withdrawal have been considered as two major dimensions of disturbed behaviour in childhood (c.f., Moscowitz, Schwartzman, & Ledingham, 1985). Accordingly, the identification, prediction and consequences of aggressivity and social withdrawal for children and their peers has been a focus of a large number of studies utilizing these peer evaluation techniques. Until recently, more research effort had been made in the area of aggression (e.g., Coie, Dodge, & Kupersmidt, 1990; Coie & Pennington, 1976; Dodge, 1985) than social withdrawal.

Interest in the study of aggression has traditionally stemmed from findings that have illustrated high prevalence rates of aggressive behaviour in children and adolescents, as well as associations between conduct disorders in childhood and adolescence to problems in adulthood (Kazdin, 1987). Some findings have been that aggression, if untreated, appears to be stable over time, and that early aggressivity in school seems to be predictive of later, serious antisocial behaviour, including criminal behaviour, spouse abuse, traffic violations, and self-reported aggression (Huesmann, Eron, Lefkowitz, & Walder, 1984).

Other studies have looked at the cognitive processes of aggressive children and adolescents and have postulated that certain distortions (e.g., hostility bias) and deficits (e.g., absence of self-inhibitory statements) may need to be targeted for more effective remediation of aggressive behaviour (Dodge, 1985; Dodge & Frame, 1982).

Interest in the definition, causes, correlates and consequences of social withdrawal, on the other hand, has been more recent and largely the result of the recognition of the importance of social exchange, particularly with peers, for normal social and cognitive development (Piaget, 1970; Sullivan, 1953). As Rubin and Asendorpf (in press) have concluded, peer interaction not only facilitates the development of social-cognition but also "enables the child to make self-appraisals and to understand the self in relation to significant others" (p. 7).

While many different terms such as social isolation, inhibition, shyness, social reticence, sociometric neglect and sociometric rejection, have been used interchangeably with social withdrawal, the most agreed upon definition of social withdrawal is probably the behavioural expression of solitude (Rubin & Asendorpf, in press). According to this definition, socially withdrawn children are thought to be "at risk" for suffering the consequences of inadequate social interaction, such as maladjustment and internalizing difficulties (i.e., anxiety, feelings of loneliness and depression) (Parker & Asher, 1987; Rubin, in press; Rubin, Hymel, Mills, 1989).

Differential Development of Children's Schemata for Aggression vs. Social Withdrawal

As mentioned earlier, a number of researchers have recently raised questions concerning the ability of children to assess social withdrawal in their peers. It has been pointed out that while children employ social schemata in processing information about the behaviour of peers, they do not use schemata equally for aggressive and withdrawn peers at all ages (Bukowski, 1990; Younger & Boyko, 1987; Younger & Piccinin, 1989; Younger, Schwartzman & Ledingham, 1985, 1986). The schema for aggressivity seems

to develop faster and to play a more prominent role in peer perception at a wide variety of ages than the schema for social withdrawal. According to some researchers, the schema for aggression appears well-developed by elementary school, whereas, the schema for social withdrawal does not seem well-developed until the middle-school and early adolescent years (Younger & Boyko, 1987). It has been concluded that with increasing age "social withdrawal" becomes more cohesive as a category of behaviours, and more prominent as a social schema underlying children's perceptions of the social behaviour of their peers (Younger et al., 1985; Younger et al., 1989).

Studies on Recall and Recognition

Studies that have examined children's memory for behaviours descriptive of the concept of social withdrawal have found that both recall and recognition increase across school-age years; such that, by early adolescence recognition and recall of this information becomes equal or greater than that of information about aggression (Bukowski, 1990; Younger & Boyko,1987; Younger & Piccinin, 1989). In addition, Bukowski (1990) has found that gender schemata, or sex stereotypes, have an influence on the recognition and recall of aggression and social isolation. The results of this study showed that a) recall and recognition of aggression, at all ages, were better when the described peer was a boy, b) recognition of withdrawal was better for the girl peer, c) recall and recognition increased with age for withdrawal, and d) gender schemata had less effect on recognition than on recall.

Studies on the Likability of Aggressive vs. Withdrawn Peers

Researchers have also looked at age-related changes in the likability of aggressive versus withdrawn peers. Younger and Piccinin (1989) tested first-, third-, fifth-, and seventh-grade children and found that likability was low for the aggressive peer at all grades. They further found that the withdrawn character was viewed as increasingly less likeable as grade increased. By grade seven, likability of the withdrawn character was as

low as for the aggressive character. As with age-related changes in the development of schemata for aggressive versus withdrawn peers, one could postulate that changes in the likability of withdrawn peers could be partly due to changes in social life phases (Higgins & Wells, 1986) and/or to the increased perception and saliency of withdrawal as being a dysfunction at older ages (Coie & Pennington, 1976).

The Heterogeneity of "Social Withdrawal"

A number of researchers (e.g., Rubin & Asendorpf, in press; Rubin & Mills, 1988; Younger & Daniels, 1992) have pointed out that what seem to be age-related differences in the development of schemata for aggression versus withdrawal may, in part, be due to the poorer internal consistency of the "Sensitivity-Isolation" scale of the RCP (Masten et al., 1985) that has been widely used in studies. Rubin & Asendorpf (in press), for example, have claimed that social withdrawal is a behavioural term that "should not be confused with the term social isolation" nor with "any sociometric classification" (p. 11). The contention of such researchers has been partly based on findings, such as those of Rubin and Mills (1988), that the peer nominated items on the RCP (Masten et al. 1985) Sensitivity-Isolation scale do not cluster into a well-defined, homogeneous factor.

Rubin and Mills (1988) applied factor analysis to the Sensitivity-Isolation scale and proposed that there may be two distinct forms of this construct, namely Passive Withdrawal (PW) and Active Withdrawal (AW). According to their analysis, the items that loaded on the PW factor - "Would rather play alone than with others," "Feelings get hurt easily," "Is usually sad," and "Is very shy" - were interpreted as referring to children who stay away or isolate themselves *from* the peer group. The items that loaded on the AW factor, on the other hand, - "Is often left out," "Has trouble making friends," and "Can't get others to listen" - were interpreted as referring to children who are isolated *by* the peer group. The latter two items of the AW factor were found to also have substantial factor

loadings on the Disruption-Aggression scale of the RCP (Masten et al., 1985), indicating a possible association with peer rejection (Rubin & Mills, 1988).

Some researchers have suggested that this heterogeneity of the construct of social withdrawal may be contributing to the relatively poorer internal consistency of younger children's assessment of social withdrawal (vs. aggression) in peers (Younger, Schwartzman & Ledingham, 1986; Younger & Daniels, 1992). Younger, Daniels, and Gentile (1989) (also Younger et al., 1991) have suggested that the poorer internal consistency of younger children's assessment of withdrawal in peers could also be a result of the differential development of children's schemata for aggression versus social withdrawal. That is, children's schemata for social withdrawal may be less well-developed at a younger age than their schemata for aggression. The relative level of maturity of these schemata may, thus, be affecting children's memory and inference-making about aggressive versus withdrawn peers.

According to Younger and his colleagues (1989, 1991), to the extent that peer evaluations rely on children's ability to recall previous examples of peer behaviour and to expect or predict future behaviour, these forms of peer evaluation may be influenced by factors affecting children's schemata. When we take this suggestion further, we would expect that differences in the properties of children's schemata for "Aggression" and "Social Withdrawal," such as the degree of schema accessibility and availability, as well as, the level of maturity of each construct, may be influencing children's responses on the peer nomination techniques. In such a way, the reliability, internal consistency, and/or validity of the scales measuring these constructs may be differentially affected by characteristics related to the relative level of development of children's schemata.

Support for the Constructs of PW and AW

The distinction between "Passive" and "Active" withdrawal has been an important advance in research on social withdrawal. This distinction has not only been a matter of

theoretical interest, but has also helped researchers identify and study differential behavioural correlates of and predictive implications for the two kinds of withdrawn children (see Bukowski & Hoza, 1990, in Younger & Daniels, 1992; Rubin, in press; Rubin & Asendorpf, in press; and Rubin & Mills, 1988; Younger et al., 1991). Passive withdrawal has been found to be quite stable between the second- and fifth-grade, often associated with negative self-perception and internalizing difficulties, and a predictor of loneliness and depression from grade one to grade 5 (Rubin & Mills, 1988). Active withdrawal, on the other hand, has been found to be less frequent than PW, less stable, related to aggressivity and externalizing difficulties, and not predictive of subsequent problems in grade five (Rubin & Mills, 1988).

Younger and Daniels (1992) have provided empirical support for this subdivision of the Sensitivity-Isolation scale into the factors of AW and PW by looking at children's perceptions of the items. Children in the first, third-, and fifth-grade were asked to complete the RCP Sensitivity-Isolation scale and were then asked to provide reasons for having selected peers for each of the seven withdrawal items. The reasons given were categorized as either belonging to the construct of passive withdrawal or active isolation (same as AW), according to the similarity of the responses to the definition of these categories provided by Rubin & Mills (1988).

Younger and Daniels (1992) found that for the three items belonging to the AW factor, the reasons children provided for the behaviour of peers were predominantly related to AW. In the same manner, children provided reasons belonging primarily to the behavioural category of PW for the behaviour of passive withdrawn peers, but only for three of the four items belonging to the PW factor. For the fourth item on the PW factor, "Someone who is usually sad," children gave an almost equal number of AW as PW reasons for the child's behaviour. From these results, it was concluded that children across the different age groups were able to differentiate between the constructs of AW and PW.

To summarize, the theory and research reviewed above has indicated a) the likely relevance of social schema theory to children's recall and prediction of the behaviour of their peers, b) age-related changes in the development of schemata for aggression versus withdrawal, c) the differential effect of gender schemata on recall and recognition of the constructs of aggression and social withdrawal, d) age-related differences in the likability of aggressive versus withdrawn peers, as well as e) the heterogeneity of the construct of social withdrawal.

In tying these various areas of study together, there are a number of issues and questions that, as of yet, have remained unaddressed. For example, are there age-related changes, in terms of schema availability, accessibility and inference making, in the development of schemata for "Active Withdrawal" versus "Passive Withdrawal"? Do gender stereotypes differentially influence children's processing of information and expectations regarding active withdrawn versus passive withdrawn peers? If so, in what manner? Does the likability of active withdrawn peers differ from that of passive withdrawn peers? If so, are there developmental and sex-related differences? Finally, how does the recognition of the distinctiveness of these two constructs change with age of the subject and/or with the gender of the withdrawn peer? As previously noted by Younger (Younger et al., 1991), "...it is apparent that the peer assessor plays an important role in the evaluation of his or her peers' behaviour. It is therefore important to consider factors that might influence his or her attention to, recall of, and predictions concerning the behaviour of his or her peers" (p. 140).

Purpose

The general purpose of this study was to examine age and gender differences in children's processing of information about Active Withdrawal and Passive Withdrawal. Two aspects of processing were considered: a) the accessibility of these schemata (c.f. Higgins & Wells, 1986), and b) the recognition of the distinctiveness between these two

constructs (Younger & Daniels, 1992). Distinctiveness is commonly understood as a continuum of differentiation, from less to more. In a single experiment, a reaction-time paradigm was used to study accessibility, and a matching or agreement paradigm was used to study distinctiveness of these two constructs. In addition, the likability of active withdrawn versus passive withdrawn peers was examined, across age and gender.

In the sense that this study examines Rubin and Mills' (1988) proposal of two types of social withdrawal from the perspective of the cognitions of younger versus older elementary school children, it can be considered to have aims similar to those of Younger and Daniels' (1992) study. Although Younger and Daniels (1992) demonstrated that children of all elementary school ages seem to differentiate between the two types of constructs, their methodology did not permit the examination of more specific expectancies that children of different ages may have of these peers; for example, whether children of different ages expect different amounts of prosociable and/or aggressive behaviours from these peers. In addition, the type of information that may be accessible to younger and older children when processing information about these peers, as well as, the influence of gender schemata on this processing were not examined. Previous studies, furthermore, have not examined the possibility of different affective biases toward active withdrawn versus passive withdrawn peers that could vary with the variables of age and gender.

By pinpointing cognitive and affective biases that might be influencing children's recall, recognition, or prediction of the behaviour and characteristics of active withdrawn and passive withdrawn peers, the findings of this study were expected to have indirect implications for the validity and reliability of data derived from the use of the "Sensitivity-Isolation" scale of the RCP (Masten et al., 1985) with children of different ages. In addition, findings of cognitive and affective biases of children toward withdrawn peers might have implications for the study of peer relations (Parker and Asher, 1987; Rubin et al., 1989), such as by contributing to the maintenance of reputational biases against these

types of peers (Hymel, 1986; Hymel et al., 1990); for the study of the influence of gender stereotyping (c.f., Berndt & Heller, 1986; Gelman et al., 1986; Ruble & Ruble, 1982) on children's perceptions of active withdrawn versus passive withdrawn peers; and finally, for the social development of active withdrawn versus passive withdrawn children themselves, that is, through the interactions of children with these withdrawn peers .

Overview of Study

The subjects in this study were told about two hypothetical peers. One was described as having the features of Active Withdrawal and the other was described as having the features of Passive Withdrawal. This information was presented orally via a Macintosh computer. Following the presentation of the information, the subjects were asked a set of questions that were presented via a recorded message programmed into the computer. These questions were designed to assess the subject's expectations of the peer who had been described. The questions concerned four types of social behaviour: Active Withdrawal (e.g., "Do you think other kids stay away from him (her)?"), Passive Withdrawal (e.g., "Do you think he (she) asks to join in games?"), Aggressive (e.g., "Do you think he (she) gets into fights a lot?"), and Prosociable (e.g., " Do you think he (she) shares his (her) things with others?"). The children responded either "Yes" or "No" to each of these questions. The subjects' responses, as well as, their reaction times to respond, were recorded by the computer. The subjects were also asked to rate how much they liked each peer on a scale of one to five and, again, their responses and reaction times were recorded.

Hypotheses

Reaction time

As mentioned earlier, several researchers have suggested or used a response latency/reaction time (RT) paradigm to study schema accessibility (e.g., Cantor & Mischel, 1977; Higgins & Wells, 1986; Rosch, 1978; Markus, 1977). In this study, we reasoned

that if older children, relative to younger children, have well-developed and differentiated schemata for AW and PW, then the time they take to recognize (or infer) schema-consistent characteristics would be shorter (indicating greater accessibility) than the time taken to recognize (or infer) characteristics belonging to other or inconsistent schemata.

Age differences

Our hypotheses were based on the findings regarding a) schema availability and accessibility, b) the development of social schemata (e.g., Higgins & Wells, 1986), c) the effects of mature vs. less mature schemata on memory and the making of inferences (e.g., Snyder & Uranowitz, 1978), as well as d) the influence of well-developed schemata and schema-consistent information on the speed of processing (e.g., Dillers, 1971, in Posner, 1978; Markus, 1977). Accordingly, it was hypothesized that the schemata of older children for the constructs of AW and PW would be relatively more well-developed and differentiated than of those of younger children. That is, with regards to their RT's to respond to the different question types, we postulated an interaction between the age of subjects, the type of withdrawn peer that children heard about, and the type of question that children responded to.

Specifically, we hypothesized that when older children, whom we postulated to have better developed and more differentiated schemata for these constructs than younger children, hear a description of a passive withdrawn (or active withdrawn) peer, their reaction time to respond to questions that tap the PW (or AW) and closely associated schemata would be faster than to questions that tap other, or less associated, schemata. Younger subjects, who were not expected to have as well-defined schemata for passive withdrawn and active withdrawn peers as older subjects, were hypothesized to respond to questions based on either the AW or PW schemata with similar reaction times.

Gender effects

Previous studies have indicated the influence of gender stereotypes on children's

perceptions and cognitions (e.g., Berndt & Heller, 1986; Bukowski,1990; Gelman et al., 1986). Bukowski (1990), for example, found better recall and recognition of aggression in boy peers than in girl peers, and a better recognition social withdrawal in girl peers than in boy peers. We hypothesized, therefore, that gender of the peer would have an effect on schema accessibility. Our hypotheses regarding the effects of the gender of the subject were more speculative. As Dodge and Feldman (1990) have noted, "patterns of social cognition differ between the sexes" (p. 119), but it is not clear how these differences would interact with sociometric differences in the perceived peers.

Gender of peer effects. Factor analysis of the RCP (Masten et al., 1985) has indicated a relatively closer association of the AW schema with aggression (Rubin & Mills, 1988). Tying this finding with the ones mentioned above, we made the first prediction that the PW schema, seeming to lack the aggressive elements of the AW schema, would be more accessible than the AW schema to all subjects when the peer is a girl, whereas, the AW schema would be more accessible than the PW schema when the peer is a boy. That is we expected an interaction between the gender of the peer (target), the type of withdrawn peer, and the AW and PW question types. Thus, in terms of reaction times, we postulated that when children would hear about a passive withdrawn peer, their reaction times to PW (i.e., schema consistent) questions would be faster than their responses to AW (i.e., schema inconsistent) questions when the peer is a girl, relative to when the peer is a boy; whereas, when children would hear about an active withdrawn peer, their reaction times to AW questions would be faster than their responses to PW questions when the peer is a boy, relative to when the peer is a girl.

Gender of subject effects. Second, we spectulated that the gender of the subject would have an effect on the accessibility of both schemata. Due to the association of active withdrawal with aggressivity, we suspected that boys would have greater familiarity with the AW schema, such that the AW schema would be more accessible to the male subjects

than to the female subjects. It was also speculated that PW schema would be more accessible to female subjects than to male subjects. That is, we considered that there would be a possibility for a three-way interaction between the sex of the subject, the type of withdrawn peer, and the AW and PW question types. This speculation would be confirmed if girls would respond more quickly to PW (schema consistent) questions than to AW questions for the passive withdrawn peer, whereas, the boys would have faster RT's to AW (schema consistent) questions than to PW questions for the active withdrawn peer.

"Yes/No" Responses

Based on Younger and Daniels' (1992) findings, we predicted that both older and younger children would be able to distinguish between the constructs of AW and PW. Differentiation between the two constructs would be shown in one of two ways a) if children would give more "Yes" responses to the questions tapping the PW construct than to questions tapping the AW construct for the passive withdrawn peer, and give more "Yes" responses to the questions tapping the AW construct than to questions tapping the PW construct for the active withdrawn peer, and/or b) if children would give more "Yes" responses to the AW questions for the active withdrawn peer than for the passive withdrawn peer, and give more "Yes" responses to the PW questions for the passive withdrawn peer than for the active withdrawn peer. Nonetheless, it was also postulated that the schemata of older children for AW and PW would be relatively more well-developed and differentiated than those of younger children. This hypothesis would be supported if the pattern of children's "Yes" and "No" responses to the behavioural expectation questions would reveal greater differentiation between the two schemata for older children. In other words, the older children would give more "Yes" responses to the schema-consistent questions than to all, or most, other types of questions, and the next

largest number of "Yes" responses would be given to the most closely associated schema, and so on.

For example, if older children have better developed and more differentiated schemata, in the case of the passive withdrawn peer, they should give more "Yes" responses to the PW questions than to all other types of questions. Since PW was presumed to be more associated to AW than to aggression or to prosociability, and since PW seemed to lack the aggressive elements of AW, the order of the average number of "Yes" responses, from highest to lowest for the passive withdrawn peer, was hypothesized to be PW>AW>PR>AG. For the active withdrawn peer, it was postulated that the older children would give more "Yes" responses to the AW questions than to all other types of questions. Since AW was presumed to be more associated to PW than to aggression or to prosociability, and since the factor of AW was found to be associated with the Aggression factor on the RCP (Rubin & Mills, 1988), the order of the average number of "Yes" responses, from highest to lowest for the active withdrawn peer, was hypothesized to be AW>PW>AG>PR.

Further to this hypothesis, we expected that the responses of younger children would be more influenced by evaluative judgments, that is by behaviours that would be considered as "bad" vs. "good" (c.f., Younger et al, 1985), whereas, the responses of older children would be more guided by their schemata for AW and PW. That is, it was considered possible that the younger children would give relatively more "Yes" responses to the prosociable question types, and the least "Yes" responses to the aggressive question types, than to the other question types, regardless of the peer, merely because they would consider prosociable behaviour to be "good" behaviour (i.e., to be ideally expected from children) and consider aggressivity as "bad" behaviour (i.e., not to be ideally expected from children).

Subsequently, we wanted to explore two competing hypotheses that would predict opposite outcomes as to which of the two schemata would appear to be more well-developed at a younger age. First, considering the significant loading of two of the AW items on the Aggression factor of the RCP (Rubin et al, 1988), as well as, findings that have indicated the earlier development of the schema for aggression than the schema for "social isolation" (Younger et al., 1987), one possibility was that the link between the schema for AW and aggression would influence the AW schema to develop earlier than the PW schema.

Our second hypothesis predicted the opposite outcome, that the PW schema would develop earlier. That is, it would also be possible that the relatively more heterogeneous nature of the AW concept (i.e., having some elements of aggression) would render the AW schema to be more complex, an perhaps more abstract, than the PW schema, thus, making the AW schema less available and/or accessible to younger children (e.g., see Flavell, 1985). The accessibility of one or the other schema at a younger age would be indicated by an interaction between grade and type of question.

Liking Ratings

Age differences

Our hypotheses on children's liking of active withdrawn and passive withdrawn peers was based on Younger & Piccinin's (1989) findings of low likability for the aggressive peer at all grades, and a decrease in likability of the socially isolated peer with increasing age of subjects. We predicted that the active withdrawn peer, because of the aggressive elements associated with AW construct, would be less liked than the passive withdrawn peer by both age groups, but that the passive withdrawn peer would be increasingly disliked with age. In other words, we hypothesized a main effect for the type of peer, as well as, a two-way interaction between grade and type of withdrawn peer.

Gender effects

We spectulated that both the gender of the peer and of the subject would influence

which type of peer children would prefer. More specifically, we considered the possibility that girls would identify more with the passive withdrawn target, or have less tolerance for AW and, therefore, give the passive withdrawn target higher liking ratings than the active withdrawn target, whereas, boys would identify more with the aggressive elements of the active withdrawn target and prefer that peer over the passive withdrawn target. That is, we expected a two-way interaction between the sex of subject and the type of withdrawn peer. It was further speculated that the female passive withdrawn target would be liked more than the male passive withdrawn target, whereas, the male active withdrawn target would be liked more than the female active withdrawn target. This latter hypothesis would be supported by the finding of a two-way interaction between the sex of the peer and the type of the withdrawn peer.

METHOD

Subjects

The original sample of subjects consisted of 52 first-grade (26 male, 26 female) and 42 fifth-grade (24 male, 18 female) children. Since the original sample of 94 subjects did not result in an equal number of subjects per cell required for a 2 (Grade) x 2 (Sex of Subject) x 2 (Sex of Hypothetical Peer) design, and since the number of subjects per cell ranged from fifteen to nine, the sample size was reduced to 72 subjects, with nine subjects per cell. The sample size was first reduced by excluding subjects with outliers (i.e., with values above three standard deviations above the mean) on at least one variable from the sample. Secondly, in cells where more than nine subjects remained, subjects were randomly rejected from the analysis.

The resulting sample, thus, included 36 first- ($\underline{M}$ = 7.10 years of age) and 36 fifth-grade ($\underline{M}$ = 11.35 years of age) children from an ethnically heterogeneous population. At each age level, half the subjects were male ($\underline{M}$= 7.17 years in grade one, $\underline{M}$ = 11.5 in grade five) and half were female ($\underline{M}$= 7.04 years in grade one, $\underline{M}$ = 11.2 in grade five). These English-speaking children were chosen from two primary public schools in suburban Montreal. Parents of the children were informed of the study by letters sent home with their children (Appendix A). Parental consent (Appendix B) was obtained for 82 % of the children to participate. Assent forms were also completed by all the children who participated (Appendix C).

Apparatus

A customized computer program using "Hypercard" on a MacIntosh Classic II computer was used to deliver prerecorded auditory messages to subjects, to ask them questions, to record their responses ("Yes" or "No") and liking ratings (one to five), and to accurately measure the response latency (to one hundredth of a second) for each

question. It was reasoned that the utilization of such a computer program would (a) help minimize age-related differences associated with linguistic competence or task demands, (b) increase experimental control, and (c) elicit and maintain the interest of young children.

For "Yes" and "No" responses, two accessible keys were clearly marked "Y" and "N" with black tape and their positions were alternated for different subjects so as to control for left/right preferences. For the liking rating responses of one to five, five adjacent keys were clearly marked with schematically drawn faces illustrating sad to increasingly happy expressions.

Procedure

Subjects were randomly assigned to listen to descriptions about either two same-age girls ("Sally" and "Jane") or two same-age boys ("Mark" and "Bruce"): one Active Withdrawn and the other Passive Withdrawn (a schematic representation of the procedure is illustrated in Figure 1). The names of the hypothetical peers were counterbalanced. Before the start of the experiment, each child was informed that the experimenters were "interested in knowing how children their age think about different kinds of children" and were assured that it was not going to be a test. One of the two female experimenters then introduced the subject to the Macintosh computer and familiarized him/her with its "voice." The subject was told that the computer would be telling him/her about some other children who "are of the same age but who go to a different school." In order to increase the accessibility of the relevant schema (c.f. Srull et al, 1979), each child was asked to "listen very carefully to the computer, try to remember what you have heard, and try to imagine very hard what he/she (the other child) is like." This procedure was similar to the one followed by Younger and Boyko (1987). Each subject was informed that the computer would ask him/her to answer some questions about these peers.

To familiarize the children with the tasks required of them, each child was trained, through the use of prerecorded practice questions (Appendix D), to listen carefully and to

Figure 1. Diagramatical Representation of the Procedure

PRIME: ACTIVE WITHDRAWN PEER **OR** **PRIME: PASSIVE WITHDRAWN PEER**

"He's the type of person that has trouble making friends"
"He can't get others to listen"
"He is often left out"

"He's the type of person who'd rather play alone than with others"
"His feelings get hurt easily"
"He is very shy"

↓

BEHAVIOURAL EXPECTATION QUESTIONS

(AG) "Do you think he teases other kids too much?"
(PR) "Do you think he helps others?"
(PW) "Do you think he's quieter than the other kids?"
(AW) "Do you think other kids stay away from him?"

↓

2ND PRIME: ACTIVE WITHDRAWN PEER **OR** **PASSIVE WITHDRAWN PEER**

"He's the type of person that has trouble making friends"
"He can't get others to listen"
"He is often left out"

"He's the type of person who'd rather play alone than with others"
"His feelings get hurt easily"
"He is very shy"

↓

2nd SET: BEHAVIOURAL EXPECTATION QUESTIONS

(PR) "Do you think he is fun to be with?"
(PW) "Do you think he lets other kids push him around?"
(AG) "Do you think he gets into fights a lot?"
(AW) "Do you think he is chosen last for games?

↓

LIKING QUESTIONS

"How much do you like this boy?"
"How much would you like to meet this boy?"
"How much would you like to play with this boy?"

know when and how to respond to the computer by pressing either the "Y" (yes) or the "N" (no) key , or by pressing the numbers one to five to indicate their degree of liking - "do not like at all," "like very little," "think its O.K.," "like," "like a lot."

The descriptions of the hypothetical active and passive withdrawn peers were based on items in Rubin and Mills' (1988) factor analysis of the Revised Class Play's Social Isolation Scale. Only one item, "Is usually sad," was left out of the description of the passive withdrawn target due to inadequate empirical support for this item as belonging mainly to the PW factor (Younger and Daniels, 1992). The active withdrawn target was described as, "He/she is a type person who has trouble making friends," "He/she can't get others to listen," and "He/she is often left out." The passive withdrawn target was described as, "He/she is a type of person who'd rather play alone than with others," "His/her feelings get easily hurt," and "He/she is very shy" (refer to Figure 1 for items describing each hypothetical peer). As a control measure, after hearing the description of an active withdrawn or a passive withdrawn peer, children were asked to recall what they had just heard about that peer.

Subjects were then asked four randomized questions about the behaviours or traits they expected of each type of withdrawn peer. Each of the four questions referred to a different category of behaviour: Active Withdrawal (AW) (e.g., "Do you think he/she is chosen last for games?"), Passive Withdrawal (PW) (e.g., "Do you think he/she is quieter than the other kids?"), Aggression (AG) (e.g., "Do you think he/she teases others?"), and Prosociability (PR) (e.g., "Do you think he/she helps others?"). The order of the questions was randomized. The questions representing each of the four behavioural categories are listed in Table 1.

The questions were derived from items belonging to behavioural categories on several peer-assessment instruments (e.g., the PEI - Pekarik et al, 1976; and the RCP - Masten et al., 1985), as well as, from some other studies (e.g., Bukowski, 1990; Younger

Table 1

Items Representing Active Withdrawn, Passive Withdrawn, Aggressive and Prosociable Question Types

Question Type	Items: "Do you think..."
Active Withdrawn...	...other kids stay away from him/her?
	...other kids like him/her?*
	...he/she is chosen last for games?
	...he/she is alone because others won't play with him/her?
Passive Withdrawn...	...he/she asks to join in games?*
	...his/her lets other kids push him around?
	...he/she is quieter than the other kids?
	...he/she is scared the other kids will laugh at him?
Aggressive...	...he/she gets into fights a lot?
	...he/she loses his/her temper easily?
	...he/she is too bossy?
	...he/she teases other kids too much?
Prosociable...	...he/she helps others?
	...he/she is fun to be with?
	...he/she is someone who plays fair?
	...he/she shares his/her things with others?

*"Yes/No" Responses to these questions were scored in reverse.

& Boyko, 1987; and Younger & Piccinin, 1989). The description for each peer was presented twice, and, each time following the description, a set of four different randomized questions was asked. Subjects responded either "Yes" or "No" to the questions by pressing one of two keys on the computer. The computer recorded their responses as well as the latency (i.e., the reaction time) to respond to each question.

After responding to all the questions for each peer, the children were asked to rate on a scale of one to five on the computer how much they liked the peer ("How much would you like this girl (boy)?," "How much would you like to meet this girl (boy)?," "How much would you like to play with this girl (boy)?"). Subjects were asked to indicate, on a scale from one to five, "Would not like at all," "Like very little," "Think he/she/it is O.K.," "like," and "like a lot." The liking ratings as well as the response latencies were recorded. The computer program randomized the order of the total of sixteen behavioural expectation questions asked of each subject, as well as, the order of presentation of each type of peer. The order of the liking questions was not randomized.

RESULTS

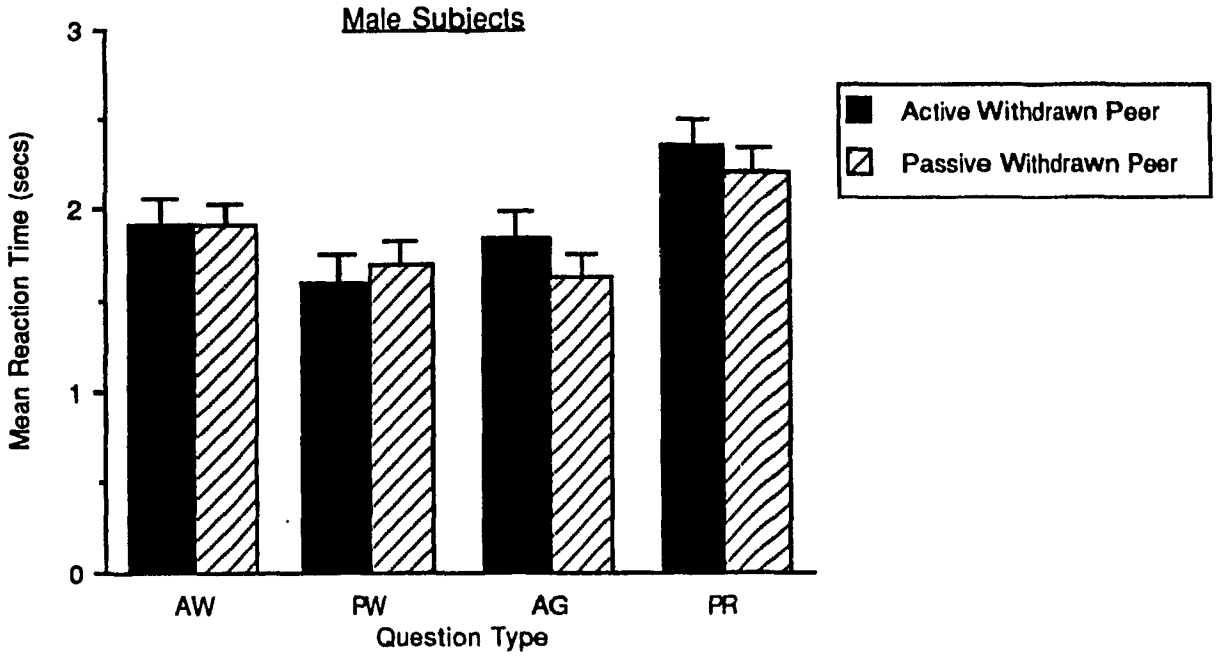
Multivariate analyses of variance (MANOVA) were conducted using a 2 x 2 x 2 x 2 x 4 (Grade x Sex of Subject x Sex of Peer x Type of Withdrawn Peer (i.e., active withdrawn or passive withdrawn) x Type of Question (i.e., AW, PW, AG, or PR)) design. The first three variables were between-subjects and the remaining were within-subjects variables.

Reaction Time Data

First, to examine accessibility of the AW and PW schemata, a set of analyses focused on children's reaction time (recorded to one-hundredth of a second) to respond "Yes" or "No" to the different behavioural expectation questions for each type of withdrawn peer. Children's reaction times to questions within each question category (i.e., AW, PW, AG, or PR) were averaged for each type of peer. One set of MANOVAs was, thus, conducted with all four question types. Since the focus of the study was on children's schemas for Active Withdrawal and Passive Withdrawal, another set of MANOVAs focused only on the AW and PW question types.

The first MANOVA, conducted with all four question types revealed a main effect for the type-of-question variable, $F(3, 192) = 6.83$, $p < .001$. The means for RT's (in seconds) and standard deviations (SD) to each of the question types were, from lowest to highest: PW ($M = 1.64$, SD = .72), AG ($M = 1.69$, SD = .83), AW ($M = 1.85$, SD = .76, and PR ($M = 2.04$, SD = 1.01). This effect was qualified by a significant three-way interaction between Sex of Subject, Type of Peer, and Type of Question, $F(3, 192) = 2.65$, $p < .05$). The means corresponding to the three-way interaction are illustrated in Figure 2 and are clarified in the simple effects tests reported below. The means and standard deviations for the variables in the three-way interaction are illustrated in Table 2.

Figure 2. Mean Reaction Times of Male and Female Subjects to Question Types for Active and Passive Withdrawn Peers



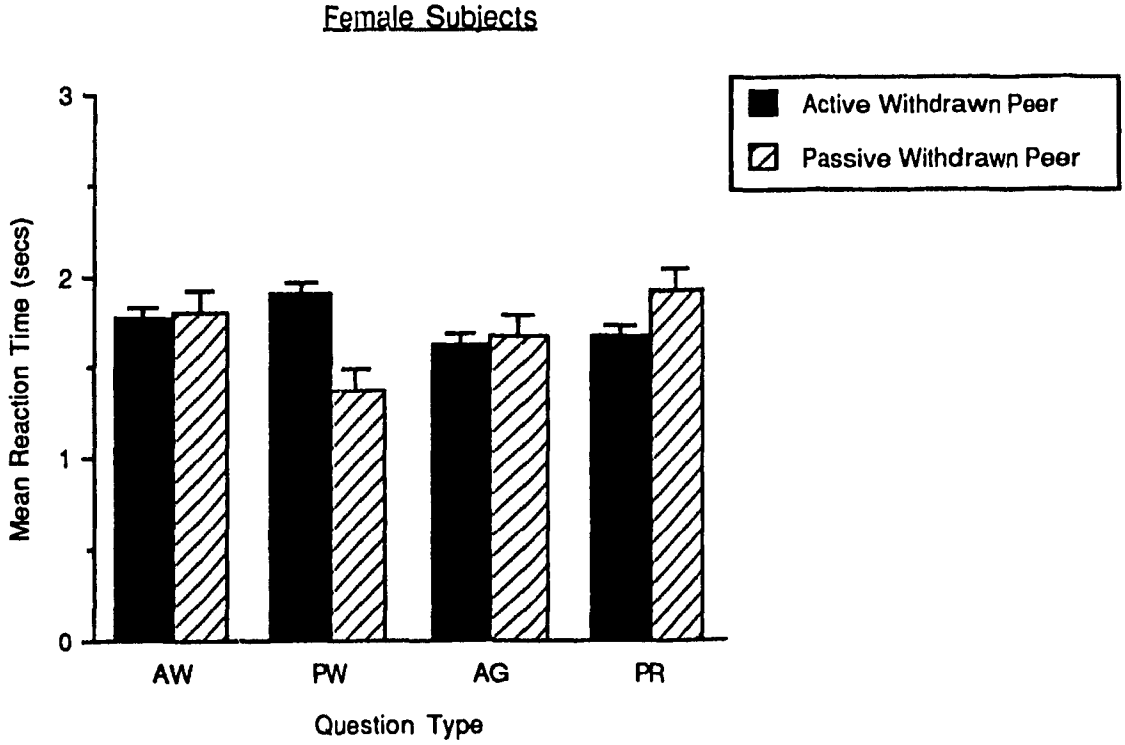


Table 2

Mean Reaction times (in secs) of Male and Female Subjects to the Four Different Question Types for the Active Withdrawn and Passive Withdrawn Peer Types

Condition		Type of Question AW	PW	AG	PR
Male Subject					
AW Peer	M	1.91	1.60	1.84	2.35
	SD	.89	.72	1.22	1.24
PW Peer	M	1.91	1.70	1.63	2.21
	SD	.97	.88	.82	1.70
Female Subject					
AW Peer	M	1.77	1.90	1.63	1.67
	SD	.82	1.28	.91	1.87
PW Peer	M	1.80	1.38	1.67	1.92
	SD	.93	.80	1.09	.79

AW = Active Withdrawal
PW = Passive Withdrawal
AG = Aggression
PR = Prosociable

This three-way interaction was clarified by analyzing the simple interaction of Type of Peer (2) x Type of Question (4) for each Sex of Subject condition using a MANOVA. This analysis tested the hypotheses regarding the effect of the gender of the subject on children's RT to the different question types for each type of peer. This interaction was significant for the female subjects, $F(3, 192) = 2.88$, $p < .05$, but not male subjects, $F(3, 192) = .522$, $p > .05$.

Simple effects tests were then computed with only the female subjects for the type-of-question variable for each type-of-peer variable separately to determine whether differences in RT to the different question types occurred for both the AW and PW peer conditions. A significant effect for the type-of-question variable was obtained with the passive withdrawn peer condition, $F(3, 192) = 2.87$, $p < .05$, but not with the active withdrawn peer condition, $F(3, 192) = .76$, $p > .05$. To test for differences in RT's to the four question types for the passive withdrawn peer in the female subject condition, multiple post-hoc comparisons were then conducted using pair-wise Student t-tests (two-tailed probability) , with Bonferonni corrections to guard against Type1 error (.05/4 = .0125). These comparisons demonstrated faster RT's (at $p < .01$ and $p < .001$) to the schema-consistent (PW) questions ($M = 1.38$, $SD = .80$) than to the AW ($M = 1.8$, $SD = .93$) and PR ($M = 1.92$, $SD = .79$) question types. No significant difference was found between the PW and the AG ($M = 1.67$, $SD = 1.09$) question types.

A second set of MANOVA's, this time focusing only on the AW and PW question types, was also conducted on the reaction time data using a Grade (2) x Sex of Subject (2) x Sex of Peer (2) x Type of Peer (2) X Type of Question (2) design. Again, the first three variables were between-subjects and the remaining were within-subjects variables. This analysis revealed main effects for Grade, $F(1, 64) = 4.77$, $p < .05$ ($M = 1.91$, $SD = .68$ for grade 1; and $M = 1.58$, $SD = .61$ for grade 5), and Type of Question, $F(1, 64) = 7.20$, $p < .01$ ($M = 1.85$, $SD = .76$ for AW questions; and $M = 1.64$, $SD = .72$ for PW

questions). These effects were qualified by a significant interaction between Sex of Peer, Type of Peer and Type of Question, $F(1, 64) = 5.53$, $p<.05$), and a trend for a Sex of Subject x Type of Peer x Type of Question interaction, $F(1, 64) = 3.63$, $p < .06$. The trend was not analyzed further. The means corresponding to the Sex of Peer x Type of Peer x Type of Question three-way interaction are illustrated in Figure 3 and are clarified in the simple effects tests reported below.

Our clarification of the Sex of Peer x Type of Peer x Type of Question three-way interaction proceeded in the following way. First, the simple interaction between the type-of-peer and type-of-question variables was examined for each sex of the peer separately. This analysis tested the hypotheses regarding the effect of the sex of the peer on children's accessibility of the AW and PW schemas. Partly consistent with the hypotheses, this interaction was significant for the female peer condition, $F(1, 64) = 6.80$, $p < .01$, but not for the male peer condition, $F(1, 64) = .51$, $p > .05$). Simple effects tests were then computed with only the female peer for the type-of-question variable for each type-of-peer variable to determine whether differences in RT's for the two question types occurred in both the active withdrawn and passive withdrawn peer conditions. A significant effect for the type-of-question variable was obtained with the passive withdrawn peer condition, $F(1, 64) = 8.14$, $p < .01$, but not with the active withdrawn peer condition, $F(1, 64) = .77$, $p > .05$. Thus, for the female peer condition, the mean RT of children to the PW questions ($M = 1.52$, $SD = .95$) was significantly shorter (at $p<.01$) than RT to the AW questions ($M = 2.0$, $SD = 1.07$). The means and standard deviations for the Sex of Peer x Type of Peer x Type of peer interaction are illustrated in Table 3.

Data from "Yes" Responses

Second, to explore children's behavioural expectations of each peer (i.e., the distinctiveness of the two constructs), a set of MANOVAs, using a Grade (2) x Sex of Subject (2) x Sex of Peer (2) x Type of Peer (2) X Type of Question (4) design, was

Figure 3. Mean Reaction Times of Subjects to AW and PW Question Types for Active and Passive Withdrawn Male and Female Peers

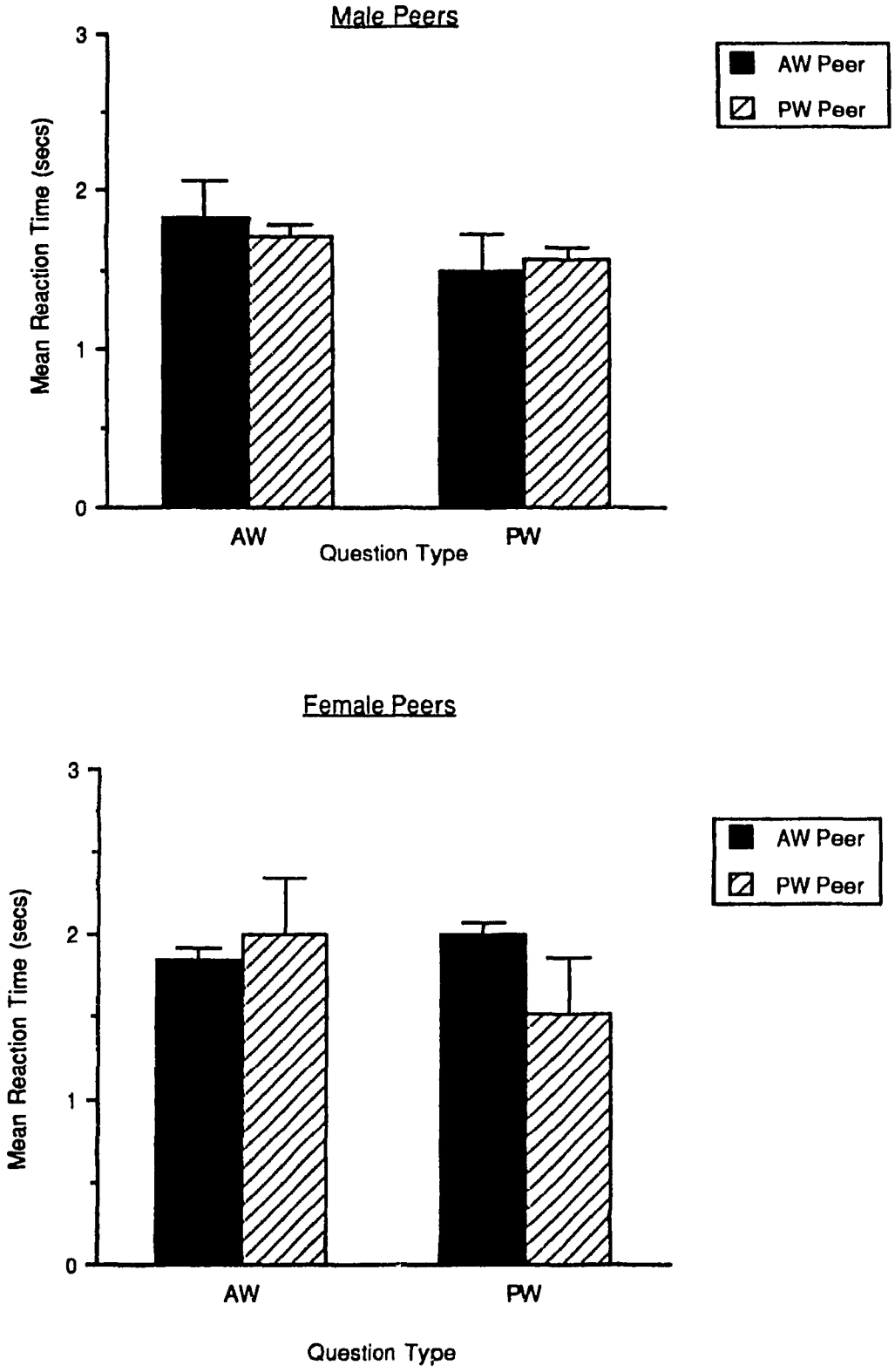


Table 3

Mean Reaction times (in secs) of Subjects to the AW and PW Question Types for Active Withdrawn and Passive Withdrawn Peers in the Male and Female Peer Conditions

Condition		Type of Question: Active Withdrawal	Type of Question: Passive Withdrawal
Male Hypothetical Peer			
AW Peer	M	1.83	1.50
	SD	1.07	.67
PW Peer	M	1.71	1.56
	SD	.80	.76
Female Hypothetical Peer			
AW Peer	M	1.85	2.00
	SD	.70	1.28
PW Peer	M	2.00	1.52
	SD	1.07	.95

AW = Active Withdrawn
PW = Passive Withdrawn

conducted on the children's "Yes/No" responses to the four question types for each type of peer. The dependent variable was the mean number of "Yes" responses given by subjects to each question type for each type of peer. For one of the questions tapping the AW schema, "Do you think other kids like him/her,?" and for one of the questions tapping the PW schema, "Do you think he/she asks to join in games?," "No" responses were counted as "Yes" responses in order to indicate schema-consistency.

The MANOVA on the mean "Yes" responses revealed a main effect for Type of Question, $F(3, 192) = 19.25$, $p < .001$ ($M = 1.20$, $SD = .63$ for AW; $M = 1.10$, $SD = .51$ for PW; $M = .51$, $SD = .54$ for AG; and $M = 1.06$, $SD = .69$ for PR), and two two-way interactions: One between Type of Peer and Type of Question, $F(3, 192) = 9.85$, $p < .001$, and the other between Grade and Type of Question, $F(3, 192) = 11.22$, $p < .001$. These effects and interactions were qualified by a significant three-way interaction between Grade, Type of Peer and Type of Question, $F(3, 192) = 2.54$, $p < .05$). The Grade x Type of Question interaction for AW peer condition is illustrated in Figure 4 and the Grade x Type of Question interaction for PW peer condition is illustrated in Figure 5. The means and standard deviations corresponding to the three-way interaction are illustrated in Table 4.

To clarify the Grade x Type of Peer x Type of Question interaction, the simple interaction between the type-of-peer and type-of-question variables was examined at the two grade levels separately. These analyses were conducted to test the hypotheses regarding the behavioural expectations of younger and older children for the different types of peers. This interaction was significant for children in grade one, $F(3, 192) = 4.56$, $p < .01$, and grade five, $F(3, 192) = 7.83$, $p < .001$.

Simple effects tests were then computed with both the grade one and grade five subjects for the type-of-question variable for the AW peer and PW peer conditions separately. For first-graders, significant effects for the type-of-question variable were

Figure 4. Mean Number of "Yes" Responses of Grade One and Grade Five Subjects to the Question Types for the AW Peers

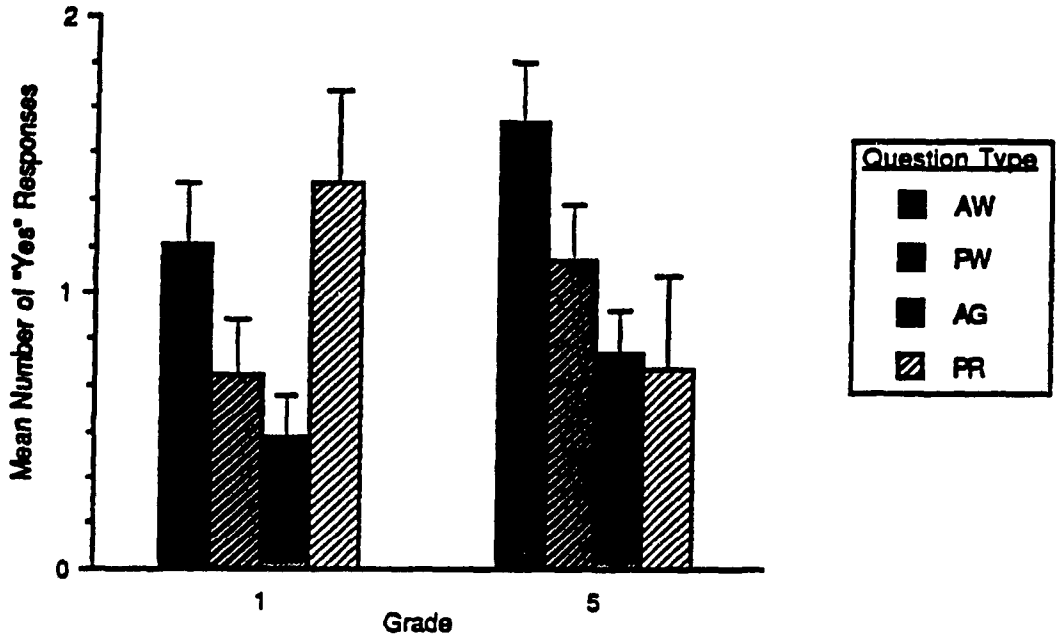


Figure 5. Mean Number of "Yes" Responses of Grade One and Grade Five Subjects to the Question Types for the PW Peers

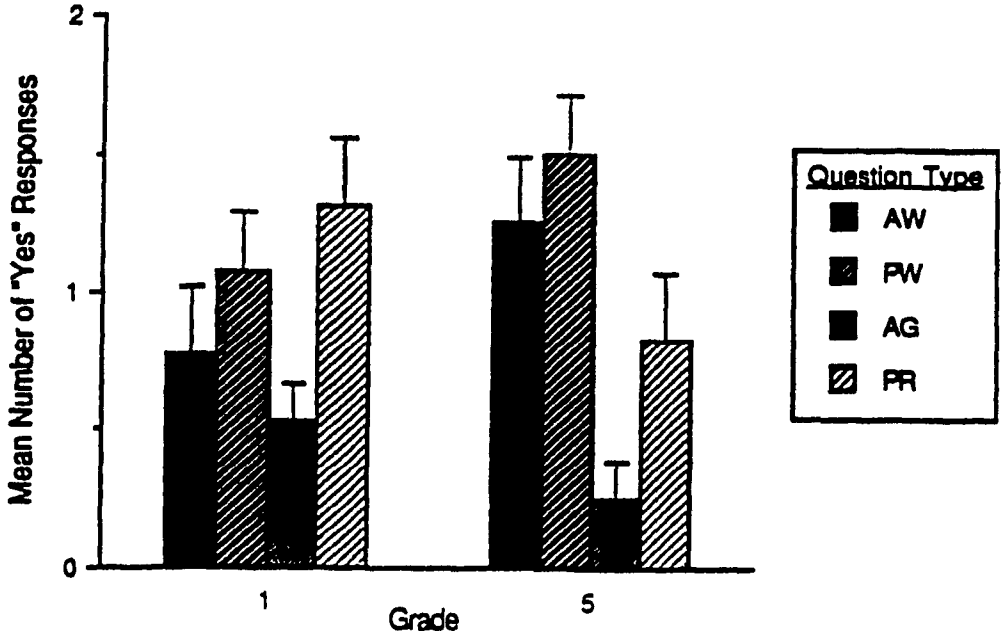


Table 4

Average Number of "Yes"* Responses of Grade One and Grade Five Subjects To the Four Question Types for Active Withdrawn and Passive Withdrawn Peers

Condition		Type of Question AW	PW	AG	PR
Grade One					
AW Peer	M	1.17	.70	.47	1.39
	SD	.70	.53	.74	.77
PW Peer	M	.78	1.08	.53	1.31
	SD	.76	.77	.70	.75
Grade Five					
AW Peer	M	1.61	1.11	.78	.72
	SD	.69	.62	.80	.85
PW Peer	M	1.25	1.50	.25	.83
	SD	.73	.61	.44	.74

AW = Active Withdrawal
PW = Passive Withdrawal
AG = Aggression
PR = Prosociable
AW Peer = Active Withdrawn Peer
PW Peer = Passive Withdrawn Peer

*"No" responses to one AW question, "Do you think other kids like him/her?," and to one PW question, "Do you think he/she asks to join in games?," were scored as "Yes" responses to indicate schema-consistency.

obtained with both active withdrawn and passive withdrawn peers, $F(3, 192) = 15.56$, $p < .001$ for the active withdrawn peer; and $F(3, 192) = 10.22$, $p < .001$ for the passive withdrawn peer. For the fifth-graders, significant effects were also obtained for the type-of-question variable for both types of peer, but the size of the effects showed a reverse pattern as compared to the pattern for first-graders (i.e., $F(3, 192) = 14.63$, $p < .001$ for the active withdrawn peer, and $F(3, 192) = 26.20$, $p < .001$ for the passive withdrawn peer.

In order to test for significant differences between the behavioural expectations of first- and fifth-graders for the passive and active withdrawn peers, two sets of multiple post-hoc comparisons, using pair-wise t-tests with Bonferonni corrections for inflated Type 1 errors, were conducted on the mean "Yes" responses to the four question types for each type of peer in both grades: One set focused on first- and fifth-graders' behavioural expectations from each type of peer (i.e., within-peer-type comparisons) (alpha=.05/6 = .008 for each type of peer), and another set focused on first- and fifth-graders' expectations from passive withdrawn versus active withdrawn peers (i.e., between-peer-type comparisons) (alpha=.05/4=.0125).

As seen in Table 4 and Figure 4, the results from the first set of analyses (i.e., post-hoc tests examining children's expectations from each type of peer) revealed that for grade one subjects their pattern of behavioural expectations from active withdrawn peers was, from highest to lowest, PR>AW>PW>AG. The t-tests demonstrated that for the AW peer condition, children in grade one expected significantly more (at $p < .01$) AW behaviour ($M = 1.17$, $SD = .70$) than PW ($M = .69$, $SD = .52$) and AG ($M = .47$, $SD = .47$) behaviour; and significantly more PR behaviour ($M = 1.39$, $SD = .77$) than PW ($M = .69$, $SD = .52$) and AG ($M = .47$, $SD = .47$) behaviour.

As seen in Figure 5, the pattern of behavioural expectations of first-grade children for the passive withdrawn peer condition was, from highest to lowest, PR>PW>AW>AG. The post-hoc comparisons demonstrated that for the passive withdrawn peer condition,

children in grade one expected significantly more (at p<.01) PR behaviour (M = 1.31, SD = .75) than AW (M = .78, SD = .76); significantly more PR behaviour (M = 1.31, SD = .75) than AG behaviour (M = ..52, SD = .70); and significantly more PW behaviour (M = 1.08, SD = ..77) than AG behaviour (M = .52, SD = .70). First-graders expected more PW than AW behaviour from the the passive withdrawn peer but nonsignificantly so (t (35) = -1.99, p > .05).

Analyses conducted on the fifth-graders' responses, on the other hand, showed that the pattern of behavioural expectations of these children for the active withdrawn peer condition was, from highest to lowest, AW>PW>AG>PR (see Figure 4). The post-hoc comparisons demonstrated that for the active withdrawn peer condition, children in grade five expected significantly more (at p < .01) AW behaviour (M = 1.6, SD = .68) than PW (M = .1.11, SD = .62), AG (M = .78, SD = .80), and PR (M = .72, SD = .85) behaviour; there was a trend (at p<.04 and p<.06 respectively) for more PW behaviour (M = 1.11, SD = .62) than PR (M = .72, SD = .85) and AG (M = .78, SD = .80) behaviour.

As seen in Figure 5, the pattern of behavioural expectations of fifth-grade children for the passive withdrawn peer condition was, from highest to lowest, PW>AW>PR>AG. The post-hoc comparisons demonstrated that for the passive withdrawn peer condition, children in grade five expected significantly more (at p<.001) PW behaviour (M = 1.50, SD = .61) than AG (M = .25, SD = .44), and PR behaviour (M = .833, SD = .74); significantly more AW behaviour (M = 1.25, SD = .73) than AG behaviour (M = .25, SD = .44); and significantly more PR behaviour (M = .83, SD = .74) than AG behaviour (M = .25, SD = .44). There were trends for more AW behaviour (M = 1.25, SD = .73) than PR behaviour (M = .83, SD = .74) (at p < .04) and for more PW behaviour (M = 1.50, SD = .61) than AW behaviour (M = 1.25, SD = .73) (at p < .06).

The second set of multiple post-hoc comparisons, focusing on children's differential expectations from active versus passive withdrawn peers, revealed that both

first- and fifth- graders expected significantly more AW behaviour from the active withdrawn peer than from the passive withdrawn peer (t (35) = 2.68, $p < .011$ for first graders and t (35) = 2.71, $p < .01$ for fifth graders), and expected significantly more PW behaviour from the passive withdrawn peers than from the active withdrawn peers (t (35) = -2.68, $p < .001$ for first graders and t (35) = -2.79, $p < .009$ for the fifth graders). Unlike the first-graders, however, fifth-graders expected significantly more aggressive behaviour from the active withdrawn peers than from the passive withdrawn peers (t (35) = 3.75, $p <$ .001. No other significant differences in children's between-peer behavioural expectations were found .

Data from Liking Ratings

To examine hypotheses regarding age- and gender-related differences in the likability of the active and passive withdrawn hypothetical peers, we examined the children's answers to the three likability questions: (1) "How much would you like this girl (boy)?," (2) "How much would you like to meet this girl (boy)?," and (3) "How much would you like to play with this girl (boy)?". Children responded according to a 5-point scale , where 1 = "Would not like at all," 2 = "Like very little," 3 = "Think he/she/it is O.K.," 4 = "would like," and 5 = "would like a lot." Children's liking ratings were averaged across the three liking questions for each type of peer.

A MANOVA was, thus, conducted on the mean liking ratings using a Grade (2) x Sex of Subject (2) x Sex of Peer (2) x Mean Liking Rating for each Peer (2). This analysis revealed a significant main effect for the Type of Peer, $F(1, 64) = 4.02$, $p < .05$, whereby the active withdrawn peer ($M = 3.35$, $SD = 1.04$) was liked significantly less than the passive withdrawn peer ($M = 3.58$, $SD = .92$). This effect was qualified by a two-way interaction between the Sex of Subject x Type of Peer, $F(1, 64) = 6.58$, $p < .01$. This two-way interaction is illustrated in Figure 6, and the corresponding means and standard deviations are shown in Table 5. T-tests conducted on the means revealed that the female

Figure 6. **Mean Liking Ratings of Male and Female Subjects for Active Withdrawn and Passive Withdrawn Peers**

Table 5

Mean Liking Ratings of Male and Female Subjects for the Active Withdrawn and Passive Withdrawn Peer Conditions

Condition	Type of Hypothetical Peer	
	Active Withdrawn	Passive Withdrawn
Male Subject		
M	3.50	3.43
SD	.97	1.02
Female Subject		
M	3.21	3.74
SD	1.11	.92

subjects liked the passive withdrawn peer (M = 3.74, SD = .92) significantly more ($t(35)$ = -2.71, $p < .01$) than the active withdrawn peer (M = 3.21, SD = 1.11), whereas, the boy peers did not show this differentiation in their liking ratings (M = 3.43, SD = 1.02 for the passive withdrawn peer; and M = 3.49, SD = .97 for the active withdrawn peer, $t(35)$ = .51, $p > .05$).

DISCUSSION

The purpose of this study was to examine age and gender differences in children's processing of information about Active Withdrawal (AW) and Passive Withdrawal (PW). Two aspects of processing were considered: a) the accessibility of these schemata (c.f. Higgins & Wells, 1986), and b) the recognition of the distinctiveness or relatedness between these two constructs (Younger & Daniels, 1992). In a single experiment, a reaction time paradigm (c.f. Posner, 1978) was used to study the accessibility of these constructs, and a matching or agreement paradigm was used to study their distinctiveness-relatedness. In addition, the likability of active withdrawn versus passive withdrawn peers was examined, across age and gender.

Several questions were addressed: They were a) whether the schemata underlying children's perceptions of socially withdrawn peers match Rubin and Mill's (1988) division of this construct into Active Withdrawal and Passive Withdrawal; b) whether the availability and accessibility of children's schemata for active and passive withdrawn peers differ developmentally and how they affect children's perceptions and inference-making; c) whether and how children's schemata for PW and AW are affected by gender schemata; as well as, d) whether age and gender influence the likability of active withdrawn and passive withdrawn peers. We will first review the age-related and gender-related findings. Second, we will discuss the implications of our findings for existing theories and knowledge in these areas. Third, we will point out some of the limitations of this study and suggest some possible research directions for the future.

Age-related Findings

Our hypothesis that there would be age-related differences in the *accessibility* of schemata for Active Withdrawal versus Passive Withdrawal is not confirmed by the results from the reaction time data. No significant interactions involving the grade variable were

observed for the reaction time data. That is, there does not seem to be significant difference in the accessibility of schemas for AW and PW with increasing age. There was, however, a main effect for the grade variable when the analysis was performed on two (AW and PW) versus four question types, indicating a faster overall reaction time for fifth-graders than for first-graders. It is possible that fifth-graders have faster overall perceptual-motor and/or information processing speed than first-graders, especially since fifth-graders had significantly faster overall reaction times ($\underline{M}$ = 1.78 seconds,SD = 1.65) than first-graders ($\underline{M}$ = 2.25 seconds, SD = 1.19) on the initial practice items. While this is likely, this possibility does not explain why there was no main effect for Grade when all four question types were analyzed.

The findings from the examination of "Yes" and "No" responses to the behavioural expectation questions do, however, support Rubin and Mills' (1988) proposal of two distinct forms of social withdrawal as described by the RCP (Masten et al., 1985). Both the first- and fifth graders showed *differentiation* between the Active and Passive Withdrawn peers. The differentiation between the two constructs was supported by the finding that both first- and fifth-graders gave significantly more "Yes" responses to the schema-consistent (i.e., AW questions) than to schema-inconsistent questions (i.e., PW questions) for the *active withdrawn peer* (Figure 4) and gave significantly more "Yes" responses to the schema-consistent, PW, questions than to the schema-inconsistent, AW, questions for the *passive withdrawn peer* (Figure 5)

Older children, however, seem to have better developed schemata for these constructs. For example, grade differences were present in children's behavioural expectations for each type of withdrawn peer. Specifically, fifth graders expected significantly more AW behaviour than any other kind of behaviour from the active withdrawn peer, and, similarly, there was a trend for expecting more PW behaviour than any other kind of behaviour from the passive withdrawn peer. First graders, on the other

hand, regardless of the type of peer they heard about, expected aggressive behaviour to be the least, and prosociable behaviour to be the most, characteristic behaviour of both types of peers. Grade differences were also present in the amount of aggressive behaviour expected from active withdrawn versus passive withdrawn peers. Only fifth graders expected more aggressive behaviour from the active withdrawn than the passive withdrawn peers ($t(35) = 3.75$, $p < .001$); accordingly, the fifth graders' behavioural expectations from active withdrawn and passive withdrawn peers match more closely the factor loadings of the items belonging to the AW and PW factors on the RCP (Masten et al., 1985) than do the expectations of the first graders.

The two-factor structure of the "Social Isolation" scale of the RCP may, thus, be more reflective of schemata of older children than of younger ones. The concept of Active Withdrawal seems to incorporate an aggressive component only for older children. Younger children seem to be less guided by their schemas for Active Withdrawal and Passive Withdrawal. That is, the findings suggest that first-graders may have a tendency to answer questions according to a positive (prosociable) and negative (aggressive) dimension, regardless of the type of withdrawn peer they hear about. This latter result supports similar findings (e.g., by Younger et al., 1985) which have indicated the dominance of evaluative judgments in young children's social perceptions.

Gender-related Findings

With regards to the effect of gender on schema accessibility, the findings seem to indicate strongly that both the gender of the peer and of the subject are related to children's accessibility of the schema for Passive Withdrawal, but not for Active Withdrawal. The concept of Passive Withdrawal seems to be closely tied to, or influenced by, the gender schema of being "female;" whereas, the accessibility of the schema for Active Withdrawal does not seem to be as affected by the "male" schema.

One of the effects of gender demonstrated in this study indicated that the schema of Passive Withdrawal may be more accessible to girls than to boys. In the analysis involving all four question types, when girls (but not boys) heard about a passive withdrawn peer, they had a significantly faster reaction time to the schema-consistent (i.e., PW) than to schema-inconsistent (i.e., AW) questions. There was a trend for this Sex of Subject x Type of Peer x Type of Question interaction when only the AW and PW question types were analyzed. The faster reaction time of girls (but not boys) to the schema-consistent questions for only the ' peer suggests this schema may be more accessible to girls. The greater accessibility of this schema could, in turn, be an indication of greater familiarity or identification of girls with the PW schema. The PW factor seems to incorporate elements such as shyness and emotional sensitivity which may be more stereotypically linked to girls than to boys. One implication of this finding for children's responses on the RCP (Masten et al., 1985) may be that the responses of girls for items on the Social Isolation scale may be more consistent for the PW factor than for the AW factor.

Another effect of gender on schema accessibility is the finding that children's reaction times to schema-consistent questions were faster only when the peer was a passive withdrawn female. That is, children's reaction times to the PW questions were significantly faster only for the passive withdrawn peer, female condition. This finding suggests that the schema for Passive Withdrawal is made more accessible to children of both sexes by its association with the "female" gender schema. Children apparently infer schema-consistent characteristics more quickly for the passive withdrawn peer when the peer is a girl, than when the peer is a boy. One implication of this finding is that it may be more difficult for children to change their perceptions of passive withdrawn peers when those peers are girls, than when those peers are boys, even when the behaviour of the girl peers begin to depart from the PW category. In such a way, reputational biases against female passive withdrawn peers may be more readily maintained than for male passive

withdrawn peers (c.f., Hymel, 1986; Hymel et al., 1990). An additional implication of this finding may be that both boys and girls could have the tendency of nominating more girls for the PW items than the base rate of female children objectively observed to fall within this behavioural category.

Since there was no main effect obtained for the sex-of-subject variable for the reaction-time data, nor for the children's reaction times for the practice items, the gender-related effects obtained for the reaction-time data cannot be explained by differences in the overall information processing or perceptual-motor speed with which boys versus girls responded to the questions.

There is also evidence, from the liking ratings, that the sex of the subject is related to a differential affective bias towards active and passive withdrawn peers (see Hymel, 1986 regarding the effects of affective biases toward peers). Girls seem to like passive withdrawn peers more than active withdrawn peers, or, lookin' at it from another perspective, boys seem to be more tolerant of active withdrawn behaviour than girls. Accordingly, girls may be more likely to interact in a more positive manner with passive withdrawn peers than with active withdrawn peers, or be less tolerant towards active withdrawn peers than towards passive withdrawn peers.

With regards to the influences of affective biases on children's responses on the RCP (Masten et al., 1985), Younger and colleagues have noted that (Younger et al., 1991), "schema functions of selective attention and recall of information have been reported as consequences of categorizing a hypothetical peer as liked or disliked." These researchers cite the work of Butler (1984) who found that children recalled proportionately more instances of negative than of positive behaviours for hypothetical peers whom they disliked. By linking Butler's findings with those of the present study, girls may be more likely than boys to recall more positive behaviours from liked peers and hence nominate liked peers for the PW (i.e., more positively viewed) items, and to recall more negative

behaviours from less liked peers and hence nominate these peers for the AW (i.e., less positively viewed) items. That there are no significant effects of sex on the children's "Yes" responses suggests that sex does not seem to be an important factor in determining the *content* of children's expectations or inferences about active and passive withdrawn peers.

The findings from this study, thus, provide a glimpse of the implicit personality theories of boys and girls regarding active withdrawn and passive withdrawn peers (refer to figures 4 and 5 for children's behavioural expectations from active and passive withdrawn peers). Data from both the reaction time and matching paradigms suggest some types of more specific information that may be accessible to children when perceiving or thinking about Active Withdrawn and Passive Withdrawn peers. Our findings of the influences of age and sex on the processing of this information indicate that there may be different cognitive and affective biases acting on children's perceptions of these two types of withdrawn peers. The biases acting on children's perceptions of these peers may, in turn, have implications for the study of peer relations (c.f., Parker & Asher, 1987; Rubin, Hymel & Mills, 1989), gender stereotyping (c.f, Berndt & Heller, 1986; Gelman et al., 1986), as well as for the study of differential social development of Active versus Passive Withdrawn children (c.f., Rubin & Asendorpf, in press; Younger et al., 1991).

Since an aim of the study was to indirectly examine the validity of the RCP (Masten et al., 1985) through the investigation of children's schemas for active withdrawal and passive withdrawal, rather than through the examination of children's *behaviours* toward *real* peers, it remains to be explored whether the age and gender effects on children's schemata differentially affect children's outward behaviours toward active and passive withdrawn peers. That is, since this study involved deliberate, conscious impressions that the subject was instructed to form, it is unclear to what extent they have to do with the type

of implicit impressions that one individual might have of another (Posner, 1978) or the type of behaviour that one might exhibit toward a real peer.

In future studies, it might also be worthwhile to include the examination of the accessibility, availability and content of children's schemas for Aggressivity and Prosociability in peers. The inclusion of these two other constructs in a study of children's trait concepts might provide a fuller picture, and a better frame of reference, for the study of children's schemas for Active and Passive Withdrawal.

Although both this and Younger and Daniels' (1992) study show support for the division of the construct of "Social Isolation" into Active and Passive Withdrawal, future studies may want to examine the possibility that this construct may be better explained by *three* types of behavioural categories (or latent variables) (Bukowski & Boivin, personal communication, April 1992). Using confirmatory factor analyses, Bukowski and Boivin recently compared four models for the structure of the Social Isolation Scale: the original organization of Social Isolation as one factor (Masten et al., 1985); the reorganization of the RCP items into two clusters, representing Active Withdrawal and Passive Withdrawal (Rubin & Mills, 1988); the placement of sadness into both of the Rubin and Mills' clusters (Younger & Daniels, 1992); and a proposed fourth model which reorganizes Social Isolation into three latent variables, namely "Social Isolation," representing shyness and preferring to play alone; "Social Ineffectiveness," representing having trouble making friends and not being able to get others to listen; and "Sensitivity," representing feelings getting hurt easily and sadness. According to their findings, the latter model accounted for the greatest amount of variance, Bentler Bonnett normed goodness of fit = .96, Chi Square = 26.24, $p < .005$, df = 11. It is, thus, possible that the construct of social isolation may best explained by a more complex categorization of behaviours. Such studies would have to be followed by observational studies of withdrawn children to determine whether

socially withdrawn or isolated children can be differentiated along these behavioural categorizations.

Considering our findings on the influences of age and gender on children's use of social schemas, it would seem worthwhile for future studies to continue the identification and examination of factors underlying children's perceptions of their peers. We do not know of other studies that have used the reaction-time paradigm, with or without the addition of a matching paradigm, in the study of children's or adults' *other* -perception. The use of reaction-time and agreement paradigms, through the aid of computer programs such as ours, seems to be a promising research tool for examining questions related to the propositional, operational and structural components of cognitions. The application of such research methodology may be particularly helpful in the examination of children's implicit trait theories, as well as, in the investigation of cognitive factors involved in children's gender and racial stereotyping. By utilizing the theories and tools of mental chronometry, dating back to Donders and Wundt, in combination with newer knowledge and modern technology, it may be possible to add some new insights in the field of children's social-cognitive development to those available through the use of other approaches.

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APPENDIX A

Department of Psychology

February 16, 1993

Dear Parents,

We are a group of researchers at Concordia University who are studying children's development. One of topics that we are studying is how children develop impressions of other boys and girls. We are writing to tell you about a study that we are conducting at your child's school and to give us permission to include your child in this project.

The questions addressed in our study are of both theoretical and applied importance. The results will provide information on age differences in how children use available information in forming impression of agemates. Such information is important in helping educators and researchers understand how children's perceptions of others influence their interactions with peers.

Children in first and fifth grade will participate in one brief experiment that will last for 15 minutes. Children will receive short descriptions of hypothetical peers. After listening to the descriptions of these peers, children will be asked questions about the characteristics of the peers, asked to judge their liking of the peers and also asked to tell us what they remember about the peers.

To conduct the experiment, children will be individually taken out of the classroom by one of the experimenters to a quiet room in the school building. The experiment will not interfere with your child's regular work. Children will only be taken out of the classroom with their consent and the approval of their teacher.

Participation in this project is voluntary. If your child begins to take part and then decides to quit, he/she may do so. All information obtained from this research will be kept strictly confidential. Children will be assigned a number and all further references to the child will be made according to this number. This study poses no risk to your child as a result of his or her

APPENDIX B

PARENT CONSENT FORM

Please read and sign the following:

I have read the letter describing the research project that will be conducted at my child's school. I understand that children will be listening to descriptions of hypothetical agemates and will be answering questions about these peers, judging their liking of the peers and recalling information about the peers. I also understand that the experiment will take a total of approximately 15 minutes. I know that there will be no direct benefits to my child as a result of having participated in the study. Additionally, I know that there are no known risks except those that children already encounter in their daily lives. I know that participation is voluntary and my child has the right to refuse to participate in this study or to end participation at any time. I understand that my child's responses will be confidential, and that no identifying information will be given in reporting the results of this research.

Please check one of the following:

_____ Yes, I give my child permission to participate

_____ No, I do not give my child permission to participate

My child's name and date of birth is _____

Please sign and print your name here:

(sign)_____ Date:_____

(print)_____

PLEASE HAVE YOUR CHILD RETURN THIS FORM TO SCHOOL TOMORROW

APPENDIX C

Child Assent Form

Name_____

Age_____ Boy_____ Girl_____

STUDENT PERMISSION FORM FOR RESEARCH ON CHILDREN'S IMPRESSIONS OF OTHERS 1993

I have been asked to be part of a project that is being done by some adults at Concordia University. This project looks at how children my age think about other kids. I know that I will learn about some boys or girls that I have never met before and then will be asked some questions about these children. I know that it is up to me if I want to be part of the project and I can decide to quit at any time. Also I know my answers are private. No one will know what I said except for the adults who are in charge of the project and their assistants. If I want to be part of the project I will write my name below.

My name is:

(Print)_____

Date_____

(Signature)_____

APPENDIX D

PRACTICE ITEMS

Description Items

"(girl or boy's name) just had a birthday party."

"All his/her friends came and had lots of fun."

"He/she got lots of great presents"

Questions

"Do you think his/her friends like him?"

"Do you think he/she hates his/her presents?"

"Do you think he/she ate the whole cake?"