

AN EXAMINATION OF SOCIAL COGNITIONS IN YOUNG CHILDREN WITH
DIFFERING BEHAVIORAL CHARACTERISTICS

By

KATRINA RAI A

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2009

© 2009 Katrina Raia

To my family, who taught me that nothing is impossible when I find my inner strength and believe in the power of my dreams. You are my inspiration. I love you with all of my heart.

ACKNOWLEDGMENTS

First and most importantly, I thank my parents and sister whose consistent support, love, insight and encouragement saw me through to the end of an arduous and rewarding journey. They are the source of my strength and the wind beneath my wings. I also want to express gratitude to other important people in my life, including Spencer Smith, who have helped make my dream a reality through their patience and support. I would like to thank my advisor, Dr. Tina Smith-Bonahue, for her assistance throughout this process. Likewise, I thank my committee members, Drs. Diana Joyce, Hazel Jones, and Kristen Kemple for all of their help. I am also grateful to all of the participants, their parents, their teachers, and the directors at the early childhood centers. Without them, this project would have never been possible. Next, I thank Jennifer Harman who helped me complete data collection. Last, but certainly not least, I am grateful to my amazing friend and ally Linda Radbill, who was with me every step of the way providing encouragement, laughter, and support. Together we achieved what so many times seemed impossible!

TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS.....	4
LIST OF TABLES.....	8
LIST OF FIGURES	9
ABSTRACT	10
CHAPTER	
1 LITERATURE REVIEW	12
Introduction	12
Social Competence.....	13
Definitional Dilemma.....	13
Model of Social Competence.....	14
Link Between Social Competence and Social Cognitive Processes.....	16
Social Cognition	17
Social Information Processing Model	17
Assessment of Social Cognition	19
Social Withdrawal in Young Children.....	20
Definitions.....	20
Prevalence and Characteristics	23
Subtypes	24
Etiology	28
Biological explanations.....	28
Environmental explanations	28
Cognitive explanations.....	30
Stability	31
Assessment	33
Intervention	36
Social Withdrawal and Social Competence.....	39
Social Withdrawal and Social Cognitive Processes.....	41
Performance Deficit Versus Skill Deficit.....	41
Interplay Between Social Cognitive Processes and Social Withdrawal.....	42
Research Outlining the Relationship Between Social Withdrawal and Specific Social Cognitive Processes.....	43
Causal attributions.....	44
Intent attributions	45
Social goals, responses, and outcomes	45
Empathy	47

	Self-efficacy.....	49
	Role or perspective taking	51
	Problem solving and social strategies	52
	Mediating and Moderating Factors	53
	Developmental Level.....	53
	Cognitive Ability	54
	Gender	54
	Language	55
	Culture	55
	Emotion	56
	Purpose of Study	57
2	METHODOLOGY.....	61
	Research Hypotheses	61
	Participants and Setting	61
	Recruitment	62
	Procedures.....	63
	Measures.....	63
	Social Skills Rating System-Preschool Level	63
	Early Childhood Social Cognitions Interview.....	65
	Second Step child interview	66
	Data Collection Procedure	68
	Data Analysis	69
3	RESULTS	70
	Descriptive Statistics.....	70
	Participant Characteristics.....	70
	Data Reduction	70
	Statistical Assumptions.....	72
	Analysis of Variance.....	72
	Multiple Analysis of Variance.....	73
	Hypothesis 1: Social Problem Solving in Withdrawn versus Outgoing Preschoolers	73
	Hypothesis 2: Emotion Knowledge in Withdrawn versus Outgoing Preschoolers	74
	Summary	74
4	DISCUSSION.....	77
	Social Problem Solving	77
	Emotion Knowledge	79
	Limitations.....	81
	Future Research Directions	85

APPENDIX

A	DEMOGRAPHIC QUESTIONNAIRE.....	88
B	PARENTAL CONSENT FORM.....	89
C	CONTENT AND SCORING CRITERIA FOR THE ECSCI.....	90
D	SCORING GUIDELINES FOR THE SECOND STEP INTERVIEW.....	92
E	CHILD ASSENT SCRIPT.....	93
F	SUBTYPES CHECKLIST.....	94
	LIST OF REFERENCES.....	95
	BIOGRAPHICAL SKETCH.....	107

LIST OF TABLES

<u>Table</u>	<u>page</u>
1-1 Twenty-nine facets of social competency in young children	58
2-1 Group characteristics.....	69
3-1 Descriptive statistics for dependent variables	75
3-2 Pearson product-moment correlations	75
3-3 Pearson product-moment correlations	76
3-4 ANOVA results	76
3-5 MANOVA results	76

LIST OF FIGURES

<u>Figure</u>		<u>page</u>
1-1	Social competence framework [Adapted from Rose-Krasnor, 1997].....	59
1-2	Social information processing model [Adapted from Crick & Dodge, 1994]	60

Abstract of Dissertation Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

AN EXAMINATION OF SOCIAL COGNITIONS IN YOUNG CHILDREN WITH
DIFFERING BEHAVIORAL CHARACTERISTICS

By

Katrina Raia

August 2009

Chair: Tina Smith-Bonahue
Major: School Psychology

To date, research on social withdrawal in young children has been minimal. Studies on behavioral difficulties in children tend to focus on externalizing behaviors. Internalizing behaviors, specifically shyness and social withdrawal are often considered less severe and children who elicit these characteristics are thought of as not requiring intervention. Research done with school age children and adults indicates stability of social withdrawal over time. Social withdrawal has also been linked to social competence deficits and long-term deficits in social transitions. Only a small number of researchers have investigated how withdrawn children's thought processes impact their social behavior. An important step in developing interventions to reduce the long-term effects of social withdrawal is to gain an understanding of withdrawn children's social cognitions at an early age.

The major objective of this research was to investigate how social cognitions differ in young children with dissimilar behavioral characteristics. Specifically this research focused on whether children described as withdrawn would exhibit a difference in their social problem solving ability and emotion knowledge as compared to children described as outgoing. It was hypothesized that a difference would exist for the social cognitive process of problem solving,

with socially withdrawn children identifying fewer solutions to social problems than outgoing children. With regards to emotion knowledge, it was hypothesized that a difference would not exist and socially withdrawn preschool children would recognize similar amounts of emotions as outgoing preschool children.

This project used general linear models to assess social skills and cognitions of 42 withdrawn and outgoing children enrolled in early childhood programs in Alachua County Florida. Results indicated that the two groups of children were significantly different from each other on all variables assessed, lending support for the first hypothesis only. Expected outcomes of this research include increasing the literature base on social withdrawal in young children, furthering an understanding of social withdrawal, and utilizing information regarding the social cognitions of socially withdrawn young children in order to develop effective intervention and prevention programs.

CHAPTER 1 LITERATURE REVIEW

Introduction

Research has suggested a connection between social withdrawal, social cognitive processes, and social competence. The nature of the link and how it manifests with socially withdrawn preschoolers has yet to be explored. The purpose of this study is to examine the relationship between social cognitive processes and social withdrawal among preschool children. Discussion will also address the affect of social withdrawal on young children's social competence skills. The following review begins with a brief overview of social competence, followed by an overview of social cognitive processes. Social withdrawal in young children is then discussed and existing research on the link between social withdrawal, social cognitive processes and social competence is reviewed. Mediating and moderating factors are then summarized. Limitations of the literature are addressed and a case is made for the importance of further examination of this topic.

The theoretical framework for this project comes from the work of cognitive developmental theorists, as well as the literature on social competence, shyness and social withdrawal (Dodge, 1985; Piaget, 1964; Rubin & Krasnor, 1986; Rose-Krasnor, 1997). Cognitive theory focuses on the structure and development of thought processes and mental understanding, and how cognition affects the development of attitudes, beliefs, values, assumptions, and behaviors (Berger, 2005). Cognition and social development have often been linked. Piaget (1964) pointed to peer interaction as a major source of cognitive as well as social development, particularly for the development of specific social cognitive processes such as role-taking and empathy. Howes (1987) viewed social competence as developing through four stages in infancy and early childhood. These stages were linked to cognitive and linguistic

development. The following section will provide an overview of social competence as it relates to early childhood.

Social Competence

Definitional Dilemma

A crucial developmental task in early childhood is the formation of social competence, the competence to interact in a variety of environments with a variety of people, especially ones peers. Social competence is an important aspect of early childhood because it predicts both social and academic outcomes (Attili, 1990; Blair, Denham, Kochanoff, & Whipple, 2004; McWayne, Fantuzzo, & McDermott, 2004). Researchers suggest that children who do not progress through developmental tasks of social competence are at risk for psychopathology (Denham, Blair, Schmidt, & DeMulder, 2002; Hughes, 1990). A universal definition of social competence does not exist due to the complexity of the construct. Social competence has been defined in a variety of ways including: the specific skills that encompass it, the outcomes associated with it, how it is measured, how it manifests through relationships, and how it relates to social validity (Asher, 1985; Gresham, 1986; Hughes, 1990; Rose-Krasnor, 1997). All of these approaches have validity and usefulness, which perpetuates the lack of consensus regarding a single definition. Tables of definitions can be found within the literature (Eisenberg & Harris, 1984; Gresham, 1986; Rose-Krasnor, 1997).

Singular definitions of identified components of social competence, such as social skills, are not well documented, which further contributes to the difficulty with identifying a sole definition of social competence (Gresham, 1986). In addition, many terms are used interchangeably with the term social competence, including emotional competence. A relatively new concept in the literature, emotional competence is related to social competence but viewed as a separate construct (Denham et al., 2003). In 1973, a panel of experts from various

disciplines met under the Office of Child Development in an attempt to define social competence in young children. Anderson and Messick (1974) lay out the findings of this panel, including 29 facets of social competence (Table 1-1). The panel's findings represented the values of society at the time, developmental expectations, and various theories; yet, the panel was unable to produce a solid definition of social competence in young children. The lack of an integrated definition of social competence leads to difficulties measuring and assessing the construct.

The functional approach has been identified as one means of defining social competence and comes from the literature on social problem-solving (Goldfried & D'Zurilla, 1969; Spivack & Shure, 1974). This approach is incorporated into many social information processing models (Crick & Dodge, 1994; Dodge, 1985; Ford & Ford, 1987). The functional approach views social competence in terms of the outcomes of social behavior and the processes leading to those outcomes. Models describe how children navigate through various processes involved in social situations. Socially competent behavior can be assessed at all stages of the model, usually in terms of success or failure. This approach connects social competence and social cognitive processes and will be further explained in this paper when discussing a model of social information processing.

Model of Social Competence

Due to the lack of a unified definition, research discusses social competence from varying perspectives, which results in different conceptualizations of social competence and how it affects child functioning. For the purpose of this review, Rose-Krasnor's (1997) model (Figure 1-1) will be used as a base for understanding social competence. The model focuses on broad and specific aspects of social competence in children and is therefore viewed as an overarching perspective that provides a foundation for this research.

Rose-Krasnor (1997) developed a comprehensive three-tiered conceptual framework on social competence that distinguishes important facets involved in developing socially competent behavior. Rose-Krasnor's model has been used as a basis for other researchers work (Denham et al, 2003; Diener & Kim, 2004). Denham et al. (2003) used this model to discuss the differences and similarities between social and emotional competence. Diener and Kim (2004) used this model to explain socially competent behavior. In Rose-Krasnor's (1997) framework social competence is defined as effectiveness in social interaction, with the caveat that social competence cannot be reduced to any single behavior.

The peak of the Rose-Krasnor (1997) model is the *theoretical level* and emphasizes the constraints under which the construct of social competence should be viewed. At this level, social competence is conceptualized as an organizing construct, focusing on a combination of characteristics and behaviors. Theoretically, social competence is viewed as transactional, context-dependent, and relative to specific goals. Further, the model outlines how social competence is evaluated in terms of performance in typical interactions rather than under ideal conditions. The peak of Rose-Krasnor's model outlines a broad definition from which to view social competence and provides the context for the remainder of the model.

The middle of the model is labeled the *index level* and focuses on the interplay between the social goals of the individual and the social goals of others. This level of the model posits that being socially competent depends on balancing self- and other-oriented priorities and maintaining autonomy as well as connectedness. Priorities related to self include achieving one's own goals and feeling efficacious in social interactions. Priorities related to others include good relationships with peers, participating in social groups, and fulfilling the societal expectation related to social behavior. Self-oriented skills include emotion knowledge and regulation,

problem solving, empathy, and self-perceptions. Other-oriented skills include friendships, peer-group entrance, peer status, and perspective taking. Both the self and other domains are divided into context slices, reflecting the situation-specific nature of the indices. This level represents the relationship component of social competence and the struggle to balance one's own needs with the needs of others. Skills are discussed in terms of whether they are related to the self and/or others.

The base of Rose-Krasnor's (1997) conceptual framework is the *skills level*. The skills level is individual focused and includes specific abilities and splinter skills under social competence, both self- and other-oriented. This level includes the social, emotional, and cognitive abilities and motivations associated with social competence. Specific skills include perspective taking, communication, empathy, affect regulation, and social problem solving. Also included in the skills level are constructs such as intelligence and language, both of which influence social competence. Rose-Krasnor (1997) points out that at the developmental level, gender and culture also continuously influence the development of social competence. This level represents a highly specific base which the other levels converge to. Specific behavioral skills, abilities, and responses are included in this level.

Within this model assessment and intervention occur within the index and skills level. The goal being, to develop targeted interventions in specific social competence skill areas the child is deficient in. The social information processing model that will be discussed in a future section of this review can be thought of as an extension of the skills level of this model due to its focus on specific social cognitive skills related to social competence.

Link Between Social Competence and Social Cognitive Processes

Research on which of the skills associated with social competence, young withdrawn children are deficient in is limited. One theory posits that withdrawn preschoolers have a social

competence skill knowledge base, however, may make cognitive attributions that interfere with the appropriate use of skills. Researchers have suggested that children set certain social goals when responding to a social situation and select specific cognitive strategies to achieve those goals. Those strategies are then translated into behavior (Crick & Dodge, 1994, Erdley & Asher, 1999). Consistent with the link between social information processing and social competence (Dodge & Price, 1994), if a child does not have the appropriate cognitive strategies or does not know how to translate those strategies into behavior failure will then occur within the social situation. The next section will provide an overview of research on social cognitive processes.

Social Cognition

Social Information Processing Model

Children's social-cognitive processes have been examined as one motivating basis of behavior (Crick & Dodge, 1994; Dodge, Pettit, McClaskey, Brown, & Gottman, 1986; Ladd & Crick, 1989; Rubin & Krasnor, 1986) with an association being proposed between social cognitions and social adjustment including social competence (Crick & Dodge, 1994). The social cognition model used for this research will be Crick and Dodge's (1994) social information processing theory (SIPM) (Figure 1-2). This model provides a premise for examining the interplay between cognition and social interaction. SIPM proposes that children enter a social situation with capabilities that are limited by genetics, schema, and recollections of past experiences. The model explains the stages children go through in processing cues related to social interaction.

In the first step, encoding of cues, children selectively attend to internal and external cues and then encode them. In the second step, interpretation of cues, children use history and cognitive schema to interpret the cues they have encoded. This step contains interpretational processes such as attributions (causal and intent), evaluations (goal attainment and past

performance), and evaluations of oneself and others. This step is also influenced by children's past experiences and social knowledge. During these first two steps children form a mental representation about the social situation they are facing. Through previous experiences they have had and schema they have formed, children attempt to interpret and understand the situation. Children may make attributions about why the situation is occurring or a peer's intent and may also make self-evaluations. These processes can effect how a child interprets the situation they are facing.

In step three, clarification of goals, children select goals to reach a specific situational outcome. They may select novel goals or goals they have used in previous situations. Crick and Dodge (1994) define goals as "focused arousal states that function as orientations toward producing or wanting to produce particular outcomes" (p. 76). Goals can be centered on internal outcomes such as obtaining a specific feeling or centered on external outcomes such as obtaining a particular item. Children often enter a situation with selected goals, however, those goals may change or new goals may be constructed in response to the situation. Goal orientations are influenced by feelings, temperament, adult instruction, cultural or subcultural norms, and the media.

In step four, response access or construction, children either retrieve numerous possible responses to the situation from memory or they create new responses. Perceived social responses reflect how children feel they could behave in a social situation. These responses may be connected to previously selected goals or may not derive from a goal and are instead connected to social stimuli. Crick and Dodge (1994) identify three aspects of response access as important: number of responses generated, content of the responses, and the order responses are accessed.

In step five, response decision, children evaluate the responses they have produced and choose the response they are going to use. Several factors go into this decision including, outcome expectations, self-efficacy, and response evaluation. Response decision can occur once after all responses have been accessed and all strategies have been generated or it can occur after each individual response is accessed. In step six, behavioral enactment, the response chosen is carried out.

Crick and Dodge (1994) identify aspects of their model that have yet to be researched. For example, they discuss the issues of determining whether processing within this system is automatic or controlled, and if the speed of processing changes depending on whether the situation is familiar or novel. They also discuss the need to determine how development and emotion affect social cognitive processing. A variety of social cognitive processes have been identified in the literature. Examples include role or perspective taking, interpersonal problem solving, generation of alternative solutions, understanding social cues, attributions of causality, attributions of intent, goal attainment, evaluation of self, evaluation of others, and self-efficacy (Crick & Dodge, 1994; Eisenberg & Harris, 1984). Several of these processes will be discussed later in this review in terms of their relation to social withdrawal.

Assessment of Social Cognition

Minimal research exists exploring the social-cognitive processes of socially withdrawn children. Mayeux and Cillessen (2003) state that measuring social cognition in young children is important “because the way children interpret and respond to social situations in early childhood may shape both their style of interaction with, and their behavioral reputation among, the peers they will be in school with for several years” (p. 157). Hypothetical vignettes are the typical mode of assessment used in research assessing social cognitive processes (Crick & Dodge, 1994; Mayeux & Cillessen, 2003; Mize & Ladd, 1988). Although the use of hypothetical vignettes has

shown to be a reliable measure in assessing young children's social cognitions (Asher & Hymel, 1981; Mize & Ladd, 1988), it is an infrequently used assessment method because it tends to be time consuming and costly (Crick & Dodge, 1994). Another difficulty with using hypothetical vignettes, especially with socially withdrawn children, is that withdrawn children's reactions to hypothetical situations tend to reflect fewer internalizing difficulties than their reactions in actual situations (Burgess, Wojslawowicz, Rubin, Rose-Krasnor, Booth-LaForce, 2006).

Despite the drawbacks with using this mode of assessment, Goossens, Bokhorst, Bruinsma, and van Boxtel (2002) found ecological validity for using hypothetical situations. Specifically, they found that children's judgments about withdrawn peers, in hypothetical vignettes, were reflected in the actual treatment of withdrawn children by peers in the classroom. These results were supported in a similar study done by Erdley and Asher (1996). Although hypothetical vignettes have often been used to measure social information processing in children, the use of this method to examine social information processing in socially withdrawn children has not been fully assessed.

Social Withdrawal in Young Children

Definitions

Shyness and social withdrawal are complex concepts that researchers have often found difficult to describe. Sanson, Pedlow, Cann, Prior, and Oberklaid (1996) assert that shyness is a "fuzzy" concept that involves a complex mix of behaviors, cognitions, feelings, and somatic reactions. To add to the ambiguity the terms inhibition, shyness, and social withdrawal are often used interchangeably (Rubin & Coplan, 2004; Younger, Schneider, Wadeson, Guirguis, & Bergeron, 2000). Despite the fact that these terms overlap and tend to describe a similar group of behaviors; there are important differences in their meanings. Rubin and Asendorpf (1993) attempted to define the different constructs within the temperament domain. *Inhibition* was

regarded as the disposition to be wary and fearful when encountering new and unfamiliar situations. *Shyness* was defined as a more specific form of inhibition that occurs in response to novel social situations. *Social withdrawal* referred to consistent inhibition and self-isolation across all situations and over time when encountering familiar and unfamiliar peers. Finally, *social isolation*, the most dissimilar of the terms, reflected the expression of solitary behavior that results from peer rejection. Unlike social withdrawal, in which one isolates themselves from the peer group, social isolation indicates rejection by peers and an involuntary isolation of the child. Socially withdrawn, behaviorally inhibited, and shy children are those who voluntarily interact with peers at a lower than normal rate, whereas, socially isolated children are those who are socially motivated and not shy or fearful, but are isolated by the peer group usually because they exhibit hostile aggressive behaviors (Rubin, Hymel, & Mills, 1989).

When social withdrawal interferes with functioning and becomes debilitating, it is then characterized as a disorder. *The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (DSM-IV-TR) outlines social phobia or social anxiety disorder, an extreme form of social withdrawal. In children, this disorder is characterized by crying, tantrums, freezing, clinging, staying close to a familiar person, and sometimes mutism. There may also be a decline in classroom performance, school refusal, or avoidance of age-appropriate social activities. Young children may appear excessively timid in unfamiliar social settings, shrink from contact with others, refuse to participate in group play, typically stay on the outside of social activities, and attempt to remain close to familiar adults (APA, 2000). If the onset of social phobia is in childhood, it usually persists into adolescence and early adulthood, often going undiagnosed and untreated until more than 20 years after onset (Eley et al., 2003).

Definitions in the literature often center on the concept of shyness. Sanson et al. (1996) defined shyness as inhibition and discomfort in the presence of unfamiliar people and situations. Beer (2002) conceptualized shyness as an affective-behavioral syndrome, characterized by social anxiety and interpersonal inhibition, that results from the prospect or presence of interpersonal evaluation. Kluger, Marquez, Murphy, Song, and Waxer (2005) point out that shyness and introversion are not synonymous. They discuss that a preference for being alone does not make one shy and although shy persons are more likely to be introverts, introverts are not necessarily shy. In early childhood, shyness is often characterized as behavioral inhibition, which Kagan et al. (1984) described as “psychological uncertainty caused by unfamiliar and challenging situations, resulting in latency to approach, cessation of play, and risk avoidance” (as cited in Kemple, David, & Wang 1996, p. 318). Various subtypes of shyness/social withdrawal have been identified in the literature, including shy/reticent behavior, passive and active solitary, avoidant, passive-anxious, unsociable, and active-isolates (Coplan, Prakash, O’Neil, & Armer, 2004; Harrist, Zeia, Bates, Dodge, & Pettit, 1997; Henderson, Marshall, Fox, & Rubin, 2004). Research has pointed out the importance of distinguishing between types of withdrawal, especially at older ages (Younger & Daniels, 1992). Subtypes will be discussed in further detail later in this review.

The focus of this research will be on social withdrawal, isolating oneself from the peer group, and this will be the term used throughout the paper. There may be two different reasons why children choose to play alone. Children may have high social approach motivation but wariness to initiate social interaction or have low social approach and avoidance motivation and not desire to play with others even though they are not averse to peer interaction (Rubin & Coplan, 2004). Other terms such as shyness and inhibition represent a temperamental construct

and are difficult to objectively observe. Social withdrawal focuses on the specific behavior of withdrawing from social interaction and is evidenced by a low rate of interrelating with peers.

Prevalence and Characteristics

Many people report experiencing aspects of social withdrawal at some point in their life and therefore endorse shyness ratings on self-report measures. This makes determining the prevalence of social withdrawal difficult. Ascertaining prevalence estimates for children is even more difficult due to the lack of validity with self-report measures at younger ages. Estimates range from 20% of children born with “shy tendencies” to ranges between 25-42% for self-reported social withdrawal (Sanson et al., 1996; Swallow, 2000). Cheek and Melchior (1990) report that “about 36% of currently shy respondents indicated that they had been shy since early childhood” (p. 62). Kagan remarks that more than 30% of us may qualify as shy, even though many may not admit to it (as cited in Kluger et al., 2005). At the more extreme end of the spectrum, between 8% and 21% of children in the United States are affected with an anxiety disorder, of which social phobia is characterized under (Eley et al., 2003).

Socially withdrawn children are often thought of as being quiet and avoiding interaction with others. Although these are typical characteristics associated with social withdrawal, there are other hallmarks of shyness in children that fall on a continuum ranging from few to many. Shyness in infancy is related to difficult temperamental and behavioral characteristics such as colic, sleeping problems, and excessive crying (Sanson et al., 1996). Kagan & Snidman (1991) suggest that infants who are easily and negatively aroused emotionally and motor wise are likely to display behavioral inhibition as toddlers (as cited in Rubin, Nelson, Hastings, & Asendorpf, 1999). Some common features of social withdrawal in children include inhibition, lack of confidence, social anxiety, unresponsiveness, uncommunicativeness, and daydreaming (Brophy, 1996). Symptoms may also include diffidence about entering social situations, discomfort in the

presence of others, exaggerated self-concern, and negative social self-concepts (Brophy, 1996; Coplan, Findlay, & Nelson, 2004). Shyness has been associated with low self-esteem and reduced creativity in preschoolers (Kemple, 1995; Kemple et al., 1996); with shyness and self-esteem and shyness and self-perceptions affecting each other in a circular manner, each causing the other.

Zimbardo (1977) portrayed shy students as speaking softly, reluctant to volunteer, hesitant to initiate interactions with the teacher, spending more time at their seats than other students, tending to obey and not get in trouble, and rarely selected for special errands or duties (cited in Brophy, 1995). Work by Erdley and Asher (1994) suggests that withdrawn children tend to hold a benign view regarding others. When harm is done to these children they tend to believe that it was caused accidentally. Rubin, Daniels-Beirness, and Bream (1984) found that social-cognitive deficits existed among extremely withdrawn preschool and kindergarten children. These children offered fewer alternative solutions to hypothetical social problems and often suggested adult intervention as their main problem-solving response. Social cognitive processes in socially withdrawn children will be discussed in further detail later in this review. Hallmarks of shyness, according to Honig (1987) include avoidance of gaze, unwillingness to accept friendly social overtures, and feelings of discomfort with strange persons. Withdrawn students rarely call attention to themselves (Brophy, 1995). Further, Zimbardo and Radl (1981) showed that when shy children rated themselves on a series of traits, they perceived themselves as more fearful, less friendly, more passive, less sociable, more introverted, liking themselves less, and less tolerant of others (cited in Honig, 1987).

Subtypes

Due to definitional issues surrounding social withdrawal, it has often been viewed as a singular concept. However research suggests that there may be several types of social withdrawal

and that specific types may result in more significant negative outcomes than others. Harrist, Zaia, Bates, Dodge, and Pettit (1997) found support for four different subtypes of social withdrawal. Their research found evidence for three groups that had previously been examined (i.e., passive anxious, unsociable, active-isolate) and one new group (i.e., sad/depressed) not previously seen in the literature. Children under the passive-anxious subtype avoid play with peers due to their fearfulness about social interaction. They want to play with other children but find it difficult to initiate interaction. Unsociable children prefer to play alone. They will interact in a group but would rather engage in solitary play than play with other children. Children in the active-isolate subtype are rejected from their peer group. They want to interact in a group but cannot find children who want to play with them. The last group, not previously identified, Sad/Depressed children, are self-isolating, timid, and immature and have a high likelihood of being rejected by peers.

Thijs, Koomen, de Jong, van der Leij, and Leeuwen (2004) found evidence for two types of social withdrawal which they termed social inhibition and solitary behavior. Social inhibition was characterized by “reflected fear, uncertainty, and reservation in social situations” (p. 809). Solitary behavior was characterized by nonsocial passive behavior and solitary play, but not by reticence. Thijs et al. (2004) compared social inhibition to the socially anxious subtype of social withdrawal identified by Coplan et al. (2004) and solitary behavior with the unsociability subtype identified by Asendorpf (1990).

Coplan, Rubin, Fox, Calkins, and Stewart (1994) found evidence for three different solitary behaviors termed solitary-passive, solitary-active, and reticence. Solitary-passive behavior includes exploring objects or engaging in constructive activities while playing alone. This behavior is reinforced in young children, because it promotes problem solving, however in

middle and late childhood it is associated with peer rejection. Solitary-active behavior is characterized by “repeated sensorimotor actions with or without objects and/or by solitary dramatizing” (p. 130). This behavior is associated with peer rejection even in preschool years. Reticence is characterized by onlooking, hovering behavior and being unoccupied in both novel and familiar circumstances. In early childhood, reticence is distinct from solitary-passive behavior. However, in middle and late childhood, the distinction fades. The researchers compared reticence to the term inhibition, identifying that they are related but not identical concepts. Coplan et al. (1994) studied these different types of solitary behavior in 4 year old children. They found that reticence in early childhood may be a precursor for anxiety in later childhood and hypothesized that in early childhood being alone (reticence) reflects anxiety where playing alone (solitary-active and solitary-passive behavior) reflects immaturity and impulsivity. Henderson et al. (2004) also found evidence for reticence and solitary-passive behavior as described by Coplan et al. (1994).

Coplan et al. (2004) found evidence for two types of social withdrawal in early childhood: conflicted shyness and social disinterest. These subtypes are linked to types of solitary behaviors found in the previously described study (Coplan et al., 1994). Children who exhibit conflicted shyness, like to play with other children but play alone because they are too fearful to initiate interaction. This subtype is hallmarked by social anxiety, wariness, fear of the unfamiliar, self-consciousness, and onlooking behavior (Coplan et al., 2007). Children who exhibit social disinterest are not motivated to play with other children and therefore play alone. These children enjoy playing alone and do not desire much social contact. However, if an enticing opportunity arises they may engage in social play. The researchers found that these children were viewed by

teachers as socially withdrawn but not anxious. Social disinterest was related to teacher's ratings of peer exclusion and rejection. Both of these subtypes are caused by factors within the child.

Research has also attempted to discriminate between the term withdrawal and other terms that are perceived to be similar. Gottman (1977) found evidence that social isolation and withdrawal did not describe the same characteristics. However, Rubin and Mills (1988) use social isolation to describe two different forms of social withdrawal: passive and active isolation. Passive isolation refers to "quiet, constructive, or exploratory and, often, sedentary behavior" (p. 917). Children in this group are characterized by social anxiety and negative self perceptions. This type of isolation is not viewed as maladaptive in preschool; however, in early elementary and later years this behavior is linked to internalizing difficulties. Active isolation refers to solitary, immature, rambunctious behavior. Children in this group are characterized by impulsivity and aggressiveness. Although linked to externalizing behavior, this type of isolation did not show stability over time, making it difficult to discern whether this behavior becomes maladaptive in later school years.

Although some forms of withdrawal do not seem to be maladaptive in early childhood (Rubin, 1982), research has shown that these forms become maladaptive in middle and late childhood (Coplan et al., 1994; Rubin & Mills, 1988). Research has also shown that young children can make distinctions among different forms of social withdrawal (Coplan et al., 2007). Even if social withdrawal is not always maladaptive in young children, the fact that it becomes maladaptive in elementary and later ages underscores the need to intervene early with socially withdrawn children in order to prevent later difficulties.

Etiology

Biological explanations

Both biological and environmental factors have been cited as causes of shyness/social withdrawal. Rowe (1990) asserts that personality traits are genetically influenced with environment having only a negligible effect. According to Honig (1987), “genetically influenced temperament may be implicated in shyness reactions of some children” (p. 55). Eley et al. (2003) found that genetic influence accounted for two-thirds of the variance in maternal ratings of shyness/inhibition in twins with non-shared environment accounting for the other one-third of the variance. The researchers also found moderate genetic overlap between the temperament like measure of shyness/inhibition and other anxiety-related behaviors. This suggests that shyness/inhibition is related to but distinct from other aspects of anxiety and helps to explain why some children who are shy go on to develop anxiety disorders while others do not. Similarly, Kagan (1989) posits that infants have a genetic hard-wiring towards being cautious, timid, and wary in unfamiliar social and nonsocial situations. In a review of research on social withdrawal and social isolation Rubin and Coplan (2004) found several biological links to social withdrawal including asymmetric resting right frontal EEG activity, lower vagal tone, and increased cortisol levels. Many researchers have also connected shyness with specific physical symptoms such as low thresholds of reactivity in the limbic system, chronic constipation, allergies, fears, nightmares, greater reactivity in the sympathetic nervous system, greater muscle tension, and elevated resting heart rates (Honig, 1987; Kagan, Reznick, & Snidman, 1987; Rubin et al., 1999; Coll, Kagan, & Reznick, 1984; Henderson, et al., 2004).

Environmental explanations

Although the presence of shyness/social withdrawal seems to have a genetic base, the characteristics and degree of social withdrawal may be influenced by environmental factors

(Honig, 1987). It has been suggested that shyness can develop as a learned response. A child may model parents or siblings who are shy themselves. A child could also exhibit withdrawn behaviors if their parents or siblings are extroverted. If the child is constantly in the background because other family members speak for the child and overtake social situations then the child may learn to withdraw.

Parenting has also been linked to social withdrawal. If parents do not provide their child with the opportunity to gain early peer interaction, social competence deficits may result (Pettit, Dodge, & Brown, 1988). Rubin et al. (1989) assert that at times temperamentally inhibited infants serve as negative stimuli to their parents. Some children may not be genetically predisposed to withdraw, and yet do so in reaction to extreme parental rejection or insensitivity. Other children may be genetically disposed to withdraw and also experience negative parent behavior which exacerbates the withdrawn behavior (Rubin & Coplan, 2004). Rubin et al. (1999) found that when parents perceived their toddlers as socially wary and shy they often used socialization strategies that further limited their children's opportunities for developing an independent self including, directing their child's activities, discouraging their child's independence, and restricting their child's behaviors. This supports the speculation that socially withdrawn children may be raised by parents who are more anxious about letting their children engage in novel experiences. This type of parenting may then influence the developmental trajectories of withdrawn children (Rubin & Coplan, 2004). Henderson et al. (2004) state, "the controlling behaviors of parents may undermine fearful children's attempts to regulate their own behaviors and emotions in early childhood" (p. 261).

Other researchers have endorsed environmental explanations for withdrawal. Zimbardo (1977) states that shyness is a learned phobic reaction to social events that may be the product of

a prior history of negative experiences with people in certain situations, not learning appropriate social skills, expecting to perform inadequately, and putting oneself down. Kagan et al. (1987) express that most American families regard consistent fear and withdrawal as undesirable qualities and parents discourage consistent displays of the outward expression of shyness.

Cognitive explanations

Cognition has been cited as an underlying influence in the emergence of social withdrawal. While cognitive explanations can also be described under the previous categories of genetic and environmental explanations, the unique attention it receives in the literature and relevance to this research study warrants a separate discussion. Self-consciousness is a cognition often linked to social withdrawal. Children may feel self-conscious in social situations as a result of repeated failure, mistreatment, or rejection from adults or peers (Brophy, 1996). Self-conscious feelings can also be attributed to constant reminding that what others think is important and that proper appearance and manners is essential. Children become nervous that they will “mess up” in social situations and use withdrawal as a self-preserving technique.

Buss (1984) noted four immediate causes of shyness that relate to self consciousness in social situations. The first cause is novelty and refers to the child’s response to new situations, new social roles, and/or meeting new people. The second cause is formality. When children are in formal situations such as weddings, ceremonies, etc. they tend to retreat because of stricter rules and feelings of vulnerability. The third cause is extremes of attention. When children are either inundated with attention or ignored in a social situation they tend to withdraw. The fourth cause is breaches of privacy, when someone unfamiliar to the child becomes privy to something private about the child, the child may become embarrassed and uncomfortable and withdraw (cited in Honig, 1987).

Another cognitive factor that contributes to social withdrawal is self-image. According to Brophy (1995), many shy children have poor self-images and feel less intelligent, attractive, and popular than their peers. Children who feel like they do not fit in may begin to isolate from their peers. Brophy (1996) states that, “a degree of shyness is normal whenever social expectations are new or ambiguous. Shyness begins to emerge as a problem if it becomes not merely situational but dispositional, so that the child is labeled as shy” (p. 2). The relationship between cognitive skills and social withdrawal is discussed in the mediating and moderating factors section of this chapter.

Stability

Social withdrawal is not solely a difficulty in childhood; without intervention, it often persists into adulthood. A study done by Sanson et al. (1996) showed moderate stability for shyness from 1 to 2 years through 5 to 6 years. Extending this research, Rubin et al. (1989) concluded that social withdrawal and lack of social interaction are risk factors for later internalizing difficulties and found moderate predictive outcomes for social withdrawal in kindergarten and grade 2 and subsequent internalizing problems in grade 4 and 5. Further, Kagan et al. (1987) confirmed that when children are extremely inhibited in their behavioral reactions to the unfamiliar in their second or third year of life these behaviors continue over a period of four years.

Asendorpf (1992, 1993) found that behavioral inhibition was more stable than IQ from age 4 through 8 (as cited in Pfeifer, Goldsmith, Davidson, & Rickman, 2002). A study done by Pfeifer et al. (2002) showed that although children who were extremely inhibited at 4 years old were not extremely inhibited by 7 years old, these children still lay in a middle range of inhibition, and were never found to lie in the uninhibited range. Rubin, Chen, McDougall,

Bowker, and McKinnon (1995) found that social withdrawal in childhood predicts internalizing problems in adolescence.

Although extremely withdrawn children may see a reduction in withdrawal, no research has shown that these children ever become uninhibited. Coplan, Rubin, Fox, Calkins, and Stewart (1994) found that in preschool children, reticent behavior, a relative of behavioral inhibition characterized by onlooking behavior and being unoccupied, may be a marker for later anxiety. Reticent behavior was also shown to be indicative of a trait variable as opposed to a state variable, indicating a high degree of stability over time. Often when parents categorize shyness as a trait they feel it is not modifiable and they are less likely to intervene, which further contributes to the stability of shyness (Mills & Rubin, 1990). Various subtypes of social withdrawal have been identified, and the possibility exists that certain subtypes have greater stability over time than others (Rubin & Coplan, 2004). For example, Harrist et al. (1997) found that certain subtypes of withdrawn children experienced greater difficulty than non-withdrawn children, in kindergarten as well as subsequent years.

Social withdrawal has also been linked to negative social outcomes in adulthood. Asendorpf, Denissen, and van Aken (2008) completed a 19 year longitudinal study in which four to six year old inhibited children were followed up at 23 years of age. Results showed that as adults inhibited children were still judged as inhibited by their parents and exhibited delays in social transitions including delays in establishing a romantic relationship and first full-time job. The most inhibited children in the study also showed internalizing patterns of low-self-esteem. In a second study done by Denissen, Asendorpf, and van Aken (2008) similar results were found with inhibited males showing slower rates of finding a romantic partner and leaving the parental household. The same results were not found for inhibited females. Caspi, Moffitt, Newman, and

Silva (1996) found that inhibited children, who were shy, fearful, and easily upset in novel settings at age 3, were more likely to meet diagnostic criteria for depression at age 21. The researchers also found that these adults were more likely to attempt suicide and males were more likely to report alcohol-related problems. A final finding was that inhibited males were more likely to have been convicted of a violent offense although were not typically recidivistic offenders. Although the researchers did not find evidence that inhibited children were at increased risk for anxiety disorders, they did hypothesize that this link may be more likely in specific subsets of social withdrawal and for inhibited children who have a family history of anxiety. Biederman et al. (2001) found support for the hypothesis made by the previous researchers in that behavioral inhibition in children was associated with a higher risk for avoidant disorder and social phobia mainly for children whose parents had a panic disorder. Caspi et al. (2003) found that children characterized as inhibited at age 3 were characterized as overcontrolled, nonassertive, and taking little pleasure in life at age 26. Children characterized as reserved at age 3 were described as unassertive, diffident, introverted, and less open to experience at age 26. Other researchers have also found evidence for the stability of social withdrawal (Hymel, Rubin, Rowden, & LeMare, 1990; Moehler et al., 2008). The research cited above gives evidence that social withdrawal exhibited in early childhood is relatively stable throughout development and can result in unfavorable outcomes.

Assessment

Assessment of social withdrawal varies due to a lack of consensus regarding the definition of social withdrawal. Rating scales, observation procedures, and sociometric measures are the most prevalent modes of assessment in social withdrawal research with children being used as assessors of problems in their peers (Younger & Boyko, 1987; Younger & Daniels, 1992). Sociometric assessment has typically been used to assess peer status in a classroom and a

picture-sociometric approach is often used with research involving preschool children (Peery, 1979). Research on using sociometrics with the preschool population is not as extensive as research on using sociometrics with other age groups; however, sociometrics seems to be a way to examine social competence. Rose-Krasnor (1997) discussed peer status reflecting social competence, in that being well liked by peers is a sign of being socially competent. Preschoolers' social behaviors have also been shown to correlate with their sociometric status (Denham & Holt, 1993).

Challenges exist when using sociometric measures to assess social withdrawal, especially in young children. One difficulty is that socially withdrawn children may not fall into either the rejected or neglected category, especially if they have one or two friendships. Another is that it is often difficult to separate withdrawn children from rejected and neglected groups of children. Children may be neglected or rejected for a variety of reasons and problems may arise in discerning which children are neglected or rejected due to withdrawal. Using sociometrics with preschooler's has presented as a difficult task due to the fact they are in a preoperational stage of thought. Preschool children's thinking is often egocentric and rigid which proves difficult in ascertaining accurate ratings of peers.

Observations are presented as an accurate way of identifying difficulties in young children. However, observations tend to be time consuming, and as so, are not used as often as other assessment techniques. Teacher rating scales have also shown to be a useful measure in determining whether a child is socially withdrawn. Teachers tend to rate children with social withdrawal as having internalizing problems regardless of the subtype of withdrawal (Coplan & Rubin, 1998). Eisenberg, Shepard, Fabes, Murphy, and Guthrie (1998) examined teacher and parent ratings of shyness and found that parents viewed shyness as social wariness with

unfamiliar people, a more temperamental view, whereas, teachers viewed shyness in terms of social-evaluative concerns, related more to the construct of social withdrawal. Coplan et al., (2004) found that shyness was associated with teacher ratings of anxiety in preschool. Research done by Younger et al. (2000), while developing a peer nomination measure of social withdrawal, found the concordance between teacher and peer ratings were higher than other combinations. Although teachers can identify social withdrawal, there are few rating scales with adequate internalizing scales. Examples of behavior rating scales with teacher forms, that possess problems, are discussed below.

The Preschool and Kindergarten Behavior Scale (Merrell, 1996) is a rating scale with teacher and parent versions used to assess problem behaviors in 3-6 year olds. The instrument was standardized on 2,855 children. The standardization sample was geographically diverse and represented the US population in terms of race/ethnicity, socioeconomic status, and disability classification. Strong internal stability, adequate temporal stability, and good content and construct validity were noted. The stability of the Anxiety/Somatic Problems internalizing factor waned over time. The author speculates that this is due to the characteristics of anxiety in early childhood in that young children feel anxious when they first enter school and then lose that anxiety as they adapt and become comfortable with their surroundings. The author states that this tool, “when used appropriately, ... should facilitate practical and relevant descriptions of social skill deficits and problem behavior excesses...” (p. 143) and could be used to determine deficits relating to social withdrawal.

The Toddler Behavior Checklist (Larzelere, Martin, & Amberson, 1989) is a rating scale that can be used by parents and teachers to rate social-emotional characteristics in 9 month to 4 year old children. The standardization sample included 427 children and overrepresented males,

Hispanics, Asians, the highly educated, and middle class workers. The authors speculate that the sample was representative of preschooler's parents. The Shyness scale on this checklist demonstrated minimally adequate reliability. Although this is one of the few scales that measures social-emotional problems in very young children, its technical properties makes it an inadequate measure.

Intervention

A variety of interventions are used to help socially withdrawn children. Mastropieri and Scruggs (2001), in reviewing studies on early intervention for socially withdrawn children in the U.S., found that interventions in which target subjects' interactive behaviors were directly reinforced and measured were most successful. The goal of most interventions is to help withdrawn children become more involved with their peers. Erdley and Asher (1994) believe "the challenge (of interventions) is to provide withdrawn children with the tools they need to put their thoughts into action so that they can become more actively and prosocially involved with their peers" (p. 12). Suggestions for promoting peer interaction include, involving withdrawn students in tutoring programs (either as tutor or tutoree), creating opportunities for them to play with younger children, pairing withdrawn children with more sociable peers, symbolic modeling, placing withdrawn children in a classroom manager role, seating shy children near preferred peers, and involving withdrawn children in group activities (Brophy, 1996; Rubin & Coplan, 2004). Burgess, et al. (2006) found that friendships protected withdrawn children from many of the negative consequences associated with withdrawal. The goal in involving shy children in peer interaction is to help them feel a sense of acceptance with peers and reduce anxiety related to interaction.

A number of interventions have been developed for use by teachers in classrooms. The most common of these interventions include changing the social environment of the classroom,

encouraging or shaping increased responsiveness, minimizing stress or embarrassment of the student, engaging withdrawn students in special activities, and involving withdrawn students in frequent private talks with the teacher (Brophy, 1996). Intervening with socially withdrawn students should include teachers working to enhance the self-esteem and confidence of these students. The more at ease a shy student feels the more likely they are to interact in the classroom setting.

Blanco and Bogacki (1988) interviewed school psychologists and collected intervention recommendations for socially withdrawn children. These recommendations included encouraging withdrawn children to join recreational and social organizations outside of school, praising children frequently and minimizing criticism, helping students to communicate without forceful coercion, avoiding placing withdrawn children in embarrassing or frightening situations, encouraging expression (through dolls, puppets, etc.), and reducing daydreaming by stressing the need for attention and participation instead of scolding (cited in Brophy, 1995). Withdrawn students can be slowly and gently led into situations that will help them become more social. It is suggested that teachers be careful not to go too fast or come across too strong or forceful, because it can result in more harm than good. Pushing shy students into social situations when they are not ready can be detrimental.

Social skills training and cognitive restructuring are interventions that encompass some of the previously talked about techniques, and are often used with withdrawn children. The goal of social skills training is getting withdrawn children more involved in social situations. The skills taught include starting and sustaining conversations, asking and answering questions, introducing oneself, asking for help, joining a group, sharing and helping, and responding to teasing. The training uses modeling to introduce skills and then provides ample practice opportunities via role

playing and behavioral rehearsal. The training then supplies performance feedback and finally requires self-monitoring of performance in real-life situations (Brophy, 1995; Choi & Kim, 2003).

Cognitive restructuring combines rational emotive education with cognitive behavior modification and focuses on a goal of eradicating anxieties and low self concepts. Rational emotive education includes eliminating irrational beliefs and replacing anxiety-provoking inhibiting thoughts with more rational and adaptive ones in order to reaffirm children's confidence in the value of their ideas. Cognitive behavior modification involves developing effective coping responses to irrational thoughts in order to alter children's internal dialogues. Children are taught to become effective observers of their own thoughts and feelings and then to use this process of self-observation to generate adaptive cognitions (Brophy, 1995).

Some programs use a combination of the interventions described above to help socially withdrawn children (Finch & Hops, 1983). Although it is important to use interventions to help socially withdrawn children who are struggling, it is a mistake to think that therapy can eradicate all withdrawal. Another mistake is to think that there can only be negative outcomes for shy children. Shyness can be a protective factor as well, with many shy children tending to do well in school and being significantly less inclined to get caught up in violence, crime or gangs (Kluger et al., 2005). As Kluger et al. (2005) state, "in a species as hungry for social interaction as ours, a trait that causes some individuals to shrink from the group ought to have been snuffed out pretty early on. Yet shyness is commonplace, lying on one end of the normal range of human temperament" (p. 1). In this vein, the focus of interventions should be on targeting those behaviors associated with social withdrawal that cause difficulty for the child, not necessarily on eradicating the social withdrawal completely. Little literature examines the effectiveness of these

interventions with socially withdrawn children, especially preschool age. The research that will be presented in this paper was done to contribute to the development of more effective interventions for preschool age socially withdrawn children.

Social Withdrawal and Social Competence

Research has indicated a link between social withdrawal and lowered social competence. Childhood difficulties tend to show either externalizing patterns such as disruptiveness and aggression or internalizing patterns such as withdrawal and anxiety (Achenbach, 1978; Merrell, 1996; Rose-Krasnor, 1997). Both patterns can lead to difficulties with social competence and in turn may lead to negative consequences for children in the future. Social withdrawal is not always viewed as a behavioral difficulty/problem; in fact withdrawal may be viewed as a favorable trait. Withdrawn children are sometimes ignored and not given help in favor of helping children with disruptive externalizing behavior problems (Kemple, 1995; Rubin & Coplan, 2004). Cheek and Melchior (1990) report that teachers tend to put their energy into children who act out aggressively and are not as likely to help a withdrawn child because they appreciate the passive compliance of these children. Lack of attention towards withdrawal could result in deleterious outcomes for withdrawn children due to the fact that social withdrawal is related to peer rejection and peer rejection has been connected with later difficulties such as delinquency and school dropout (Rose-Krasnor, 1997). Symptoms associated with shyness in preschoolers include diffidence about entering social situations, discomfort in the presence of others, exaggerated self-concern, negative social self-concepts, low self-esteem, and reduced creativity (Coplan, Findlay, & Nelson, 2004; Kemple, 1995). Erdley and Asher (1999) state that poorly accepted children have the tendency to either be aggressive or “extremely withdrawn, nonresponsive, or submissive” (p. 2). Withdrawn behavior is also related to neglect by peers, which can impact social competence (Kim, 2003).

A study by Coplan, Findlay, and Nelson (2004) using parent and teacher ratings as well as self-reports indicated that preschool children with negative perceptions had more internalizing problems and were excluded more by peers. Similarly, Lindsey (2002) studied preschool children's friendships using sociometric measures and teacher ratings. Children with at least one friend were liked more by peers and rated as more socially competent by teachers than children with no friends. One year later these children still remained more popular with their peers. Other research has shown that children who are not accepted by peers are at risk for negative consequences such as higher levels of loneliness and social dissatisfaction, mental health problems, internalizing symptoms, low self-worth, and delinquency (Hughes, 1990; Klima & Repetti, 2008). A review of several articles on social competence revealed that socially withdrawn children with social competence difficulties face long-term consequences such as poor school level transitions and increased school dropout rates (Erdley & Asher, 1999).

Social cognitions have been identified as an important component of social competence (Crick & Dodge, 1994; Webster-Stratton & Lindsay, 1999). The Office of Child Development panel identified facets of social competence that were related to social cognitive processes. These facets included, children having a concept of themselves as the initiator and director of their own behavior, children having realistic feelings of self-worth, children forming and maintaining friendships, children regulating their emotions, children using effective problem solving skills, and children being flexible in using different information processing strategies (Anderson & Messick, 1974). Literature points to an underlying link between social competence, social withdrawal, and social information processing. Further research is needed to explore and identify this link.

Social Withdrawal and Social Cognitive Processes

Performance Deficit Versus Skill Deficit

A large research base exists examining the social cognitive processes of aggressive children (Burks, Laird, Dodge, Pettit, & Bates, 1999; Crick & Dodge, 1996; Dodge, 1980; Dodge & Frame, 1982; Huesmann, 1988; Perry, Perry, & Rasmussen, 1986; Webster-Stratton & Lindsay, 1999; Williams, Lochman, Phillips, & Barry, 2003) however; little research has explored the social information processing of young socially withdrawn children. When socially withdrawn young children show deficits, it is often unclear as to the specific skills they are deficient in as well as whether they exhibit true skill deficits or whether they exhibit performance deficits. Wichmann, Coplan, and Daniels (2004) found that socially withdrawn children process social situations similarly to more socially competent peers, but are unable to regulate their emotions during these situations. This finding supports the idea that socially withdrawn children show a performance deficit rather than a skill deficit, in that they possess social cognitive skills related to social competence but do not know how to behaviorally enact those skills.

Consistent with the work of Bandura's (1969, 1977) social learning theory and ideas on response acquisition (learning) and performance, a distinction has been made in the literature regarding skill versus performance deficits. Social learning theory posits that a combination of social and psychological factors influence behavior. Under this theory there are three requirements for individuals to learn and model behavior including attending to and remembering observations, reproducing behaviors observed, and incentive to want to adopt behaviors observed. Gumpel and Golan (2000) hypothesized that some social deficits may be performance-based deficits in which children *won't* do something, as opposed to skill deficits in which children *can't* do something.

The difficulty in determining whether a social deficit is skill or performance based leads to complexity in assessment and intervention (Hughes, 1990). Gresham (1986) outlines the differences between a skill and a performance deficit and goes further by discussing the role emotional arousal responses play in delineating between the two. A skill deficit is viewed as a deficit in which children do not know how to perform a skill due to never having performed the skill before. A performance deficit refers to “a deficiency in the number of times a social behavior is emitted” (p. 8). With a performance deficit children have been observed performing the behavior previously but do not perform it in all situations or at all times. Emotional arousal may contribute to deficits in social skills. For example, if a child is extremely anxious he/she may retreat from social situations and therefore never learn the skills necessary to join a group. With a performance deficit, emotional arousal may be a contributing factor in why a skill is performed inconsistently. For example, children may have the skills necessary to join a group, but the emotional state of anxiety prevents them from using that skill consistently.

Interplay Between Social Cognitive Processes and Social Withdrawal

Research suggests that socially withdrawn children experience deficits in a variety of social cognitive processes including attributions, social goals and strategies, empathy, self-efficacy and concept, problem solving, and perspective taking. Rubin et al. (1984) found that social-cognitive deficits existed among extremely withdrawn preschool and kindergarten children. These children offered fewer alternative solutions to hypothetical social problems and often suggested adult intervention as their main problem-solving response. Research has shown that withdrawn children often blame their failures on internal stable factors, pursue less assertive social goals and strategies, display a self-defeating attribution, and hold more negative self-perceptions (Wichman, Coplan, & Daniels, 2004). Harrist et al. (1997) examined the social information processing patterns of kindergarten children exhibiting four different types of social

withdrawal. The sad/depressed and unsociable subtypes showed no social cognitive deficits. The active-isolate subtype showed deficits at the encoding, response generation, and response endorsement stage. The passive-anxious subtype showed deficits at the interpretation step by under-attributing hostility. These results suggest that certain subtypes of social withdrawal may exhibit social information processing deficits where others may not.

Researchers have hypothesized that social withdrawal and social cognitions interact in a circular pattern whereby difficulty with social interactions hinder social-cognitive development, which in turn further hinder social interactions (Banerjee & Henderson, 2001; Rubin et al., 1995). Socially withdrawn children are said to suffer from “maladaptive emotion-cognition connections” (Fine, Izard, Mostow, Trentacosta, & Ackerman, 2003; p. 333). These children may experience deficits in the way they process social information, which then leads to behavioral deficits in social competence. During several steps in the social information processing model, cognitive constructs such as confidence and self-efficacy may affect outcomes. Due to lowered confidence and self-efficacy, withdrawn children may have trouble executing certain steps in the model effectively and efficiently, leading to undesirable outcomes and social competence deficits.

Research Outlining the Relationship Between Social Withdrawal and Specific Social Cognitive Processes

A limited amount of literature exists examining the social cognitive processes of socially withdrawn preschool aged children; making it necessary to also review literature on the social cognitive processes of socially withdrawn elementary aged children in an attempt to gain an understanding of what these processes may look like in even younger children. Research on the interaction between various social cognitive processes and social withdrawal is described below.

Causal attributions

Causal attributions are defined as presumptions made by individuals about why particular social events occur and who caused them. When assessing causal attributions, it is important to consider locus of control, stability of events, and controllability (Wichmann, Coplan, & Daniels, 2004). Little research has been done on socially withdrawn children's causal attributions. It is possible that socially maladjusted children attribute positive social outcomes to external forces and therefore have lower self-efficacy which in turn leads to further social difficulties (Crick & Dodge, 1994). It has also been surmised that children's feelings about peers' problem behaviors are related to how responsible they feel their peers are for that behavior (Goossens, et al., 2002).

Graham and Hoehn (1995) studied 5 to 11 year old children's attributions about social withdrawal. By 5 years old, normally functioning children perceived their socially withdrawn peers as not responsible for their condition and deserving of sympathy and acceptance. In this study peers perceived socially withdrawn children as having an external locus of control related to their difficulty. Goossens, et al. (2002) replicated Graham and Hoehn's (1995) study using Dutch children and then completed a second study using two added hypothetical scenarios. Their results mirrored those of the original study and in addition showed withdrawn children eliciting some feelings of anger from their peers as compared to prosocial children. Different feelings were elicited by peers depending on the type of withdrawal displayed. Peers were more sympathetic towards the anxious child as compared to the child who played alone.

Research has also indicated that socially withdrawn children exhibit an internal locus of control in terms of their social difficulties. Wichmann, Coplan, and Daniels (2004) found this in a study examining the causal attributions of 9 to 13 year old socially withdrawn children as compared to aggressive and normally functioning children. Results suggested that withdrawn children had an external locus of control concerning their successes and an internal locus of

control concerning their failures. The withdrawn children in this study also saw social success as happening infrequently and social failures as occurring more often. The authors discuss how this maladaptive thinking pattern can lead to learned helplessness and in turn children may further internalize and continue to fail socially. Burgess et al. (2006) found that shy/withdrawn fifth and sixth graders made internal attributions regarding social situations when an unfamiliar peer was involved but not when a friend was involved.

Intent attributions

Intent attributions, also referred to as ambiguous provocations, describe the blame children place on themselves and other children in ambiguous conflict situations. This has been studied extensively with aggressive children with findings indicating aggressive children usually attribute hostile intentions in ambiguous situations (Burks et al., 1999; Crick & Dodge, 1996; Dodge, 1980; Dodge & Frame, 1982; Huesmann, 1988; Perry et al., 1986; Webster-Stratton & Lindsay, 1999; Williams et al., 2003). Little research exists on the intent attributions of socially withdrawn children. Erdley and Asher (1994) studied whether fourth and fifth grade student's intent attributions differed from aggressive and prosocial children's. Findings suggested that, similar to prosocial peers, withdrawn children believed that harm in an ambiguous situation was caused accidentally. It is possible that preschoolers are too young to differ by behavioral group on intent attributions; however, more research is needed in this area.

Social goals, responses, and outcomes

Children can possess several social goals in a given situation. Attaining specific social goals, such as peer group entry and friendship initiation, have shown to be difficult for socially withdrawn children. Crick and Dodge (1994) indicate that children, who view the possible outcomes of their goals pessimistically, even though the true outcome may not be a negative one, tend to give up on social interaction attempts easier. When socially withdrawn children's social

goals (e.g., peer group entry) fail, such children no longer find social interaction rewarding and withdraw further (Burgess et al., 2006). This lack of social self-efficacy and further withdrawal limits the child from gaining additional skills in the future (Rose-Krasnor, 1997; Rubin, et al., 1995).

Putallaz and Sheppard (1992) assert that peer group entry is a difficult task for children who have social competence difficulties. Peer group entry was examined in two studies done by Dodge et al. (1986) on kindergarten through 4th grade socially competent and incompetent children. Findings showed that children who utilized social cues as well as generated and enacted competent entry strategies were successful in gaining group entry. Further, results showed that children who were able to engage in continuous positive behavioral and verbal exchanges within the group remained part of the group and were rated positively by peers. The strategies described in this study for gaining group entry are not typically exhibited by socially withdrawn children. The authors discussed how children process information about their peers in a group entry situation and then exhibit behaviors which in turn affect how their peers view and behave toward them. Withdrawn children exhibit inhibited behaviors which increase their difficulty with gaining entry into a peer group. Putallaz and Gottman (1981) found that unpopular children, a group that contained some socially withdrawn children, had more difficulty entering groups than their peers.

Erdley and Asher (1994) studied whether fourth and fifth grade withdrawn student's social goals differed from aggressive and prosocial children's. Findings revealed that socially withdrawn children hold the belief that they are skilled at demonstrating prosocial goals, such as peacefully working things out in a conflict situation, and not skilled at demonstrating retaliation goals. Withdrawn children advocated more avoidant strategies and rated the goal of evading

harm as higher than other children. Erdley and Asher (1996) again examined fourth and fifth grade students and found the same results as in their previous study, that withdrawn children endorsed both prosocial and avoidant social goals. Wichmann, Coplan, and Daniels (2004) studied the social goals of 9-13 year old socially withdrawn children as compared to aggressive and normally functioning children. Results suggested that withdrawn children's endorsement of social goals did not differ from the other groups, again suggesting that withdrawn children exhibit a performance rather than a knowledge deficit. Withdrawn children rated assertive goals as less important than the other groups did. Little research has been done on preschool children's social goals because the prevailing view has been that these skills are not developed until middle childhood and adolescence (Kazura & Flanders, 2007). However, new research suggests that preschool children can understand, describe, and differentiate social interactions and social cues (Kazura & Flanders, 2007).

Empathy

Empathy is defined as "recognizing and experiencing another's emotional state" (Findlay, Girardi, & Coplan, 2006; p. 347). Empathy is one indicator of socially competent behavior and is evident in prosocial children (Dunsmore et al., 2008). Emotion knowledge can be viewed as an early stage of empathy which fosters emotion regulation (Eisenberg, Sadovsky, & Spinrad, 2005; Fine, Izard, Mostow, Trentacosta, & Ackerman, 2003; Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001). Difficulties with emotion knowledge have been linked to behavioral, learning, and social problems (Blair & Coles, 2000; Cook, Greenberg, & Kusche, 1994; Izard, 2001; Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001; Schultz, Izard, Ackerman, & Youngstrom; 2001).

Research on emotion knowledge in young children suggests that children begin to recognize basic emotion terms around age two, accurately interpret emotions around age three

and continue to progress in emotion understanding with age (MacDonald, Kirkpatrick, & Sullivan, 1996; Misailidi, 2006; Pons, Lawson, Harris, & Rosnay, 2003; Ridgeway, Waters, & Kuczaj; 1985). It has also been suggested that children as young as three are able to identify basic emotions when presented through different mediums including the face, the voice, and a combination of the two (Stifter & Fox, 1986). Two types of emotion knowledge, emotion expression knowledge (i.e., the ability to label facial expressions) and emotion situation knowledge (i.e., the ability to label emotions through situational cues), have been distinguished in the literature and were found to influence one another (Fine, Izard, Mostow, Trentacosta, & Ackerman, 2003; Schultz, Izard, Ackerman, & Youngstrom; 2001).

In a study done by Denham and Couchoud (1990) analyzing emotion understanding in preschoolers, four year olds were better able to name and recognize emotional expressions than two and three year olds and children's ability to identify emotions in situations correlated with their ability to identify singular emotional expressions. Researchers also found that all children in the study were better able to identify happiness over negative emotions (i.e., sadness, anger, fear) and that fear was the emotion children had the most difficulty identifying. Other studies have similarly shown that young children are better able to identify positive emotions over negative ones (Stifter & Fox, 1986). Studies examining the effect of mediating and moderating variables, such as cognitive ability, language, negative emotionality, maternal characteristics, environmental risk, and gender in young children's emotion knowledge suggest several of these factors play a role in young children's emotion understanding (Bennet, Bendersky, & Lewis, 2005; Cook, Garner, Jones, & Miner, 1994; Denham & Couchoud, 1990; Greenberg, & Kusche, 1994). A further review of factors linked to emotion knowledge is outside the scope of this study.

Research has shown that teachers and peers tend to show empathy towards withdrawn children (Chang, 2003; Goossens et al., 2002; Graham & Hoehn, 1995); however, research has failed to address empathy and emotion knowledge among socially withdrawn young children. Two studies done with first grade children from economically disadvantaged families, using similar samples and procedures, showed that low levels of emotion knowledge predicted teacher or self reports of internalizing behaviors and withdrawal for these children in first and fifth grade (Fine, Izard, Mostow, Trentacosta, & Ackerman, 2003; Schultz, Izard, Ackerman, & Youngstrom; 2001). Researchers discussed two separate pathways that may explain the relationship between emotion knowledge and social withdrawal. One pathway involves peer rejection as a mediator and the other pathway involves self-perception and anxiety. Findlay et al. (2006) examined the relationship between social behaviors and empathy in kindergarteners and first graders. Their findings showed that children rated as empathic by their mother's were also rated as being less withdrawn than their peers. Findings also showed that withdrawn children are less likely to respond to peers in empathic ways. Researchers hypothesized that withdrawn children are able to recognize different emotional states but often do not engage in behaviors associated with empathy such as helping or comforting others because of their anxiety in social situations.

Self-efficacy

Self-efficacy, also referred to as self-concept, was a construct originally identified and defined by Bandura (1977) as the extent to which individuals believe they can perform and complete behaviors necessary for certain results. Shyness has consistently been linked to low self-esteem and self-concept (Leary, 2001) and socially withdrawn children have been shown to lack self-confidence and esteem (Kemple, 1995). Moreover, acceptance by peers during preschool years has been linked to preschoolers' ability to maintain positive affect in themselves

and others (Denham & Holt, 1993). During preschool years children's self-judgments may not always be accurate, due to the fact that they cannot always distinguish their wants from reality (Harter & Pike, 1984), and because of this only perceived self-competence can truly be measured for this age group.

Nelson, Rubin, and Fox (2005) examined the relationship between two types of social withdrawal (reticence and solitary-passive withdrawal), peer acceptance, and self perceptions in children at age 4 and then again at age 7. Several findings resulted for boys. First, reticence at age 7 was related to lower peer acceptance and physical and cognitive competence. Second, solitary-passive withdrawal at age 4 was related to positive cognitive self-perceptions at age 7. Third, solitary-passive withdrawal at age 7 was related to lower peer acceptance and physical competence. Results for girls indicated that both reticence and solitary-passive withdrawal resulted in lower peer acceptance at age 4 and 7. Also, for girls, peer acceptance at age 4 influenced self-perceptions of competence at age 7. Coplan et al. (2004) studied two types of social withdrawal (conflicted shyness and social disinterest) in 3-5 year old children and found that children with conflicted shyness had lower perceived competence. Social disinterest was not related to perceived competence. Rubin and Mills (1988) found that passive isolation, a subtype of social withdrawal, was related to negative self-perceptions in 2nd, 4th, and 5th grade students.

Wichmann, Coplan, and Daniels (2004) studied the self-efficacy of 9 to 13 year old socially withdrawn children as compared to aggressive and normally functioning children. Results suggested that withdrawn children felt less efficacious about achieving assertive goals than their peers. Erdley and Asher (1996) also found that withdrawn children did not feel confident in achieving antisocial goals, but did feel confident about achieving prosocial goals. Coplan, Findlay, and Nelson (2004) found that preschool children with less positive self-

perceptions were rated by teachers as more socially anxious and withdrawn. These children were also found to be excluded by peers and reported feelings of loneliness. Kemple (1995) found that shyness and low self-esteem were associated in preschool children. The researcher hypothesized that shyness and self-esteem influence each other in a cyclical manner each affecting and worsening the other. Eisenberg et al. (1998) examined shy children longitudinally from kindergarten to 12 years old. They found that shyness ratings by teachers and parents, although not associated with externalizing problems, were associated with low levels of positive emotion. Hymel et al. (1990) studied social isolation in children in 2nd grade and again in 5th grade. Their results showed that social withdrawal and negative self-perceptions in 2nd grade predicted negative self-perceptions in 5th grade. Researchers hypothesized that either social withdrawal may lead to negative perceptions or negative perceptions may lead to social withdrawal, but causation was unknown.

Hymel, Bowker, and Woody (1993) studied peer- and self- perceptions in fourth and fifth grade students. Findings indicated that withdrawn children were viewed by their peers as incompetent in athletics but not academics and were viewed as unattractive and having no fashion sense. These children were also perceived as socially incompetent and were likely to be left out of the peer group. Withdrawn children were also rated by their peers as having positive qualities such as behaving positively and getting along with adults. Researchers hypothesized that although peers may view withdrawn children as having positive qualities, withdrawn children do not possess qualities valued by the peer group and are thus neglected or rejected. Regarding self-ratings, withdrawn children reported accurate but negative self-perceptions.

Role or perspective taking

Porath (2003) states that “children’s understanding of their own and others’ intentions, roles, relationships, and activities” (p. 469) in early childhood is important to their development

of social competence. Banerjee and Henderson (2001) examined the social cognition of socially anxious 6-11 year old British and American children. Measures of social anxiety, shy negative affect, social-cognitive abilities, and social skills were used. Findings showed that socially anxious children who were also high in shy negative affect displayed specific social cognitive deficits. These children had difficulties understanding other's mental states and linking emotion and behavior.

Problem solving and social strategies

The ability to problem solve and generate social strategies is an important facet of becoming socially competent. Richard and Dodge (1982) identify three skills important in problem solving. First is identifying many solutions to a problem. Second is the generation of effective solutions. Third is the evaluation of all possible solutions. Spivack and Shure (1974) suggest that socially competent children generate a variety of solutions to problems and then choose the most effective solution to implement. Crick and Dodge (1994) discuss how maladjusted children, including socially withdrawn children, exhibit memory deficits that interfere with their encoding of social cues, attend to certain social cues and not to others, and have engrained schema that do not allow them to grasp immediate social cues during a situation. These deficits often lead to deficits with problem solving for these children.

Adalbjarnardottir (1995) investigated whether social withdrawal, social anxiety, and locus of control were related to interpersonal negotiation strategies in children age 8-11. Findings suggested that socially withdrawn children were more likely to propose lower level unilateral strategies when resolving conflicts than more sociable children. The author hypothesized that socially withdrawn children receive fewer opportunities for social interaction and therefore do not practice interpersonal understanding and skills such as perspective taking like more sociable children do. Wichmann, Coplan, and Daniels (2004) studied the social strategies of 9 to 13 year

old socially withdrawn children as compared to aggressive and normally functioning children. Results suggested that withdrawn children endorsed more passive and avoidant social responses than their peers but did not endorse adult intervention any more than their peers. Other researchers have also found this relationship between passive coping strategies and withdrawn behavior (Blair et al., 2004; Eisenberg et al., 1998). Burgess et al. (2006) found in their sample of fifth and sixth graders, that shy withdrawn children endorse avoidant coping strategies. Kazura and Flanders (2007) found that children between the ages of 3 and 6 who endorsed avoidance goals often also endorsed adult-seeking strategies in conflict situations. Richard and Dodge (1982) found that 2nd through 5th grade socially isolated boys could only generate one solution to a problem and the solution was typically ineffective and reflected their withdrawn behavior. Mayeux and Cillessen (2003) studied kindergarten and 1st grade boys and found that rejected boys were more likely to avoid conflict and request help in distressing social situations.

Mediating and Moderating Factors

Developmental Level

Social cognitive processes and how children react in social situations changes with age. Eisenberg and Harris (1984) discuss the importance of taking into account developmental processes and age when examining social cognitive processes, especially related to social competence. Crick and Dodge (1994) suggest that acquisition of cognitive skills, increases in cognitive capacity, and speed and rigidity of processing are developmental changes that affect social cognition. Children's social knowledge expands with age bringing with it a larger and better developed base from which to choose strategies for social interaction. Children's processing speed also increases and processing ability becomes more complex. Children's processing patterns that resulted from early experiences can become more inflexible and resistant to change. If patterns are maladaptive this rigidity can lead to difficulties with social competence.

Social cognitive skills can also change with age due to different skills increasing and decreasing in importance at varying ages (Crick & Dodge, 1994). It has been suggested that children's view of social withdrawal changes with age and may not be as salient at younger ages due to egocentric thinking (Younger & Boyko, 1987). However, limited research has been done in this area and the research available is mixed.

Cognitive Ability

The Office of Child Development Panel cited several skills related to intelligence as facets of social competence, including, categorizing, memory, critical thinking, and creative thinking skills (Anderson & Messick, 1974). Grossberg and Cornell (1988) found that 7-11 year old children with higher IQ's tended to show less anxiety and nervous behaviors. Rapport, Denney, Chung, and Hustace (2001) suggest a path model linking internalizing behavior and achievement. After examining a sample of children age 7-15 years, they found that consistent internalizing characteristics including withdrawal, impact cognitive processes which in turn impact the acquisition of knowledge and classroom performance. However, intelligence was found to be a separate construct that did not influence internalizing behaviors or vice versa. Intelligence has also been cited as a moderator between social withdrawal and adjustment outcomes (Rubin & Coplan, 2004).

Gender

Research on social withdrawal in children has found that withdrawn boys seem to suffer more severe consequences than girls (Caspi, Elder, & Bem, 1988; Coplan, Prakash, O'Neil, & Armer, 2004, Rubin & Coplan, 2004). Research done on social cognitive processes in socially withdrawn children has been mixed regarding significant differences in gender. Burgess et al. (2006) found that fifth and sixth grade boys were more likely than their peers to have angry emotional reactions to hypothetical situations that involved an unfamiliar peer and had a negative

outcome. They also found that girls were more likely to internalize and avoid dealing with conflict situations. Crick and Dodge (1994) identify two ways in which gender may moderate the relationship between social cognitive processes and social competence. Children may either exhibit gender normative ways of behaving but do so to such an extreme that their behaviors become maladaptive; or, children may exhibit maladaptive gender atypical ways of behaving.

Language

Children with language deficits are often rated as socially withdrawn and rated as exhibiting difficulties with social cognitive processes (Cohen, Menna, Vallance, Barwick, Im, & Horodezky, 1998); however, little research has been done on the actual interaction between language and social withdrawal and/or social cognitive processes. The Office of Child Development Panel cited language as one of their facets of social competence (Anderson & Messick, 1974). Crozier and Hostettler (2003) found that shy children do not perform as well than their peers on measures of vocabulary when given a face-to-face individual test. When shy children completed a group test, they did as well as their peers. This suggests that their may not be a true difference in vocabulary acquisition but instead anxiety may influence test-taking ability.

Culture

No research is available examining the influence of culture on social cognitive processes in socially withdrawn young children. However, research does exist on the differences in cultural views of social withdrawal. Burgess, Rubin, Chea, and Nelson (2001) state “the relative adaptive nature of shyness and social withdrawal appears to vary between Western individualistic cultures and Eastern collectivistic cultures” (p. 147). In individualistic cultures shy and withdrawn behavior reflects social incompetence and is therefore regarded as maladaptive. In collectivistic cultures shyness and inhibition are regarded as positive and inhibited behaviors are valued and

encouraged by all members of society (Burgess et al, 2001). Rubin and Sloman (1984) asserted that children's success at interpersonal relationships seemed to be a priority for many North American parents and not as much of a priority for parents of other cultures (as cited in Schneider, Attili, Vermigli, & Younger, 1997). In Western cultures, shy, sensitive and reticent behaviors are typically viewed as socially immature and reflect a lack of self-confidence. Shy behavior is usually associated with peer rejection or isolation by the peer group. Conversely, in Eastern cultures, highly expressive individuals are regarded as socially immature and shy behavior is associated with peer acceptance (Chen, Rubin, & Sun, 1992; Chen, Hastings, Rubin, Chen, Cen, & Stewart, 1998). Parents who value individualism and believe children should be brought up outgoing and sociable, valuing self promotion, are likely to find shyness/social withdrawal troubling. Parents who value collectivism and societal harmony may be more concerned about behaviors that threaten the welfare of the social group and less concerned about withdrawal behaviors (Schneider et al., 1997). In collectivistic societies, if social withdrawal correlates with failure to participate in aspects of the group experience that may be important to the culture, it is then viewed negatively and seen as failure to contribute to the common well-being (Attili, Vermigli, & Schneider, 1997, Rubin & Coplan, 2004).

Emotion

Emotion is linked to social cognition and social information processing. Crick and Dodge (1994) explain how emotion factors into all of the steps of their social information-processing model. Under their model emotions may serve as an internal cue to be encoded, may influence children's interpretations of situations, may enhance or inhibit children's motivation, may influence the type of response children choose to use in a situation, and may influence outcomes of future situations. Crick and Dodge (1994) state emotions and social-information processing most likely work in a cyclical pattern with each influencing and contributing to the other.

Purpose of Study

As discussed previously, social withdrawal is often not taken seriously as a behavioral difficulty/problem. Social withdrawal is at times viewed as a favorable trait and socially withdrawn children are ignored and not helped in favor of helping children with more disruptive behavior problems. Cheek and Melchior (1990) report that teachers tend to put their energy into aggressive children who act out and are not as likely to help a socially withdrawn child because they appreciate the passive compliance of these children. Rubin et al. (1995) assert that social withdrawal has not been an area of focus due to the prevailing view that it does not lead to negative outcomes. The researchers believe this view comes from a focus in the research on aggression as well as a lack of consensus on the definition of social withdrawal. Due to the fact that most school psychologists do not get the opportunity to work with children who are socially withdrawn they often lack knowledge in how to help a child with this type of difficulty. Even at young ages, social withdrawal can affect a child's life in a variety of ways and is therefore a critical area of research.

Crick and Dodge (1994) discuss in a review of literature supporting their proposed model, the relatively small amount of research that has been done examining the social cognitive processes of young children as well as socially withdrawn children. Other researchers have also commented on the lack of literature surrounding the social cognitions of socially withdrawn children (Burgess, et al., 2006; Wichmann, Coplan, & Daniels, 2004). Erdley & Asher (1999) state, "that as children become older, the social goal priorities they set are likely to become solidified through years of social experiences and may become increasingly resistant to change. This points to the importance of intervening with younger children (e.g., preschoolers, children in kindergarten) before their thought patterns become relatively stable" (p. 11). After outlining the potential outcomes of social withdrawal and understanding the effect this behavioral

characteristic can have on social competence, it is important to find ways to intervene early in order to prevent withdrawn children from experiencing difficulties in the future. Examining social cognitive processes, specifically problem solving and emotion knowledge, in socially withdrawn young children is a starting point in investigating where withdrawn children show deficits and possible paths to intervention for these children.

Table 1-1. Twenty-nine facets of social competency in young children

1. Differentiated self-concept and consolidation of identity	16. Perceptual-motor skills
2. Concept of self as an initiating and controlling agent	17. Language skills
3. Habits of personal maintenance and care	18. Categorizing skills
4. Realistic appraisal of self, accompanied by feelings of personal worth	19. Memory skills
5. Differentiation of feelings and appreciation of their manifestations and implications	20. Critical thinking skills
6. Sensitivity and understanding in social relationships	21. Creative thinking skills
7. Positive and affectionate personal relationships	22. Problem-solving skills
8. Role perception and appreciation	23. Flexibility in the application of information-processing strategies
9. Appropriate regulation of antisocial behavior	24. Quantitative and relational concepts, understandings, and skills
10. Morality and prosocial tendencies	25. General knowledge
11. Curiosity and exploratory behavior	26. Competence motivation
12. Control of attention	27. Facility in the use of resources for learning and problem solving
13. Perceptual skills	28. Some positive attitudes toward learning and school experiences
14. Fine motor dexterity	29. Enjoyment of humor, play, and fantasy
15. Gross motor skills	

(Anderson & Messick, 1974)

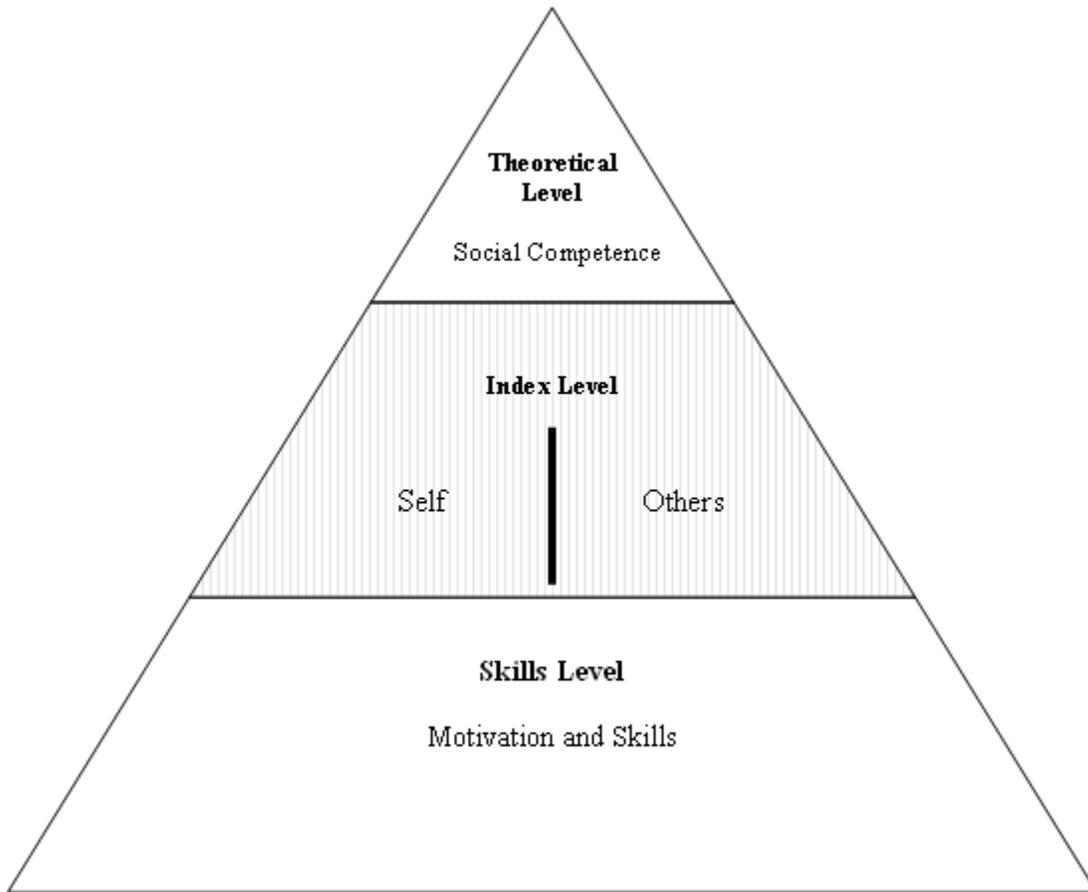


Figure 1-1. Social competence framework [Adapted from Rose-Krasnor, 1997]

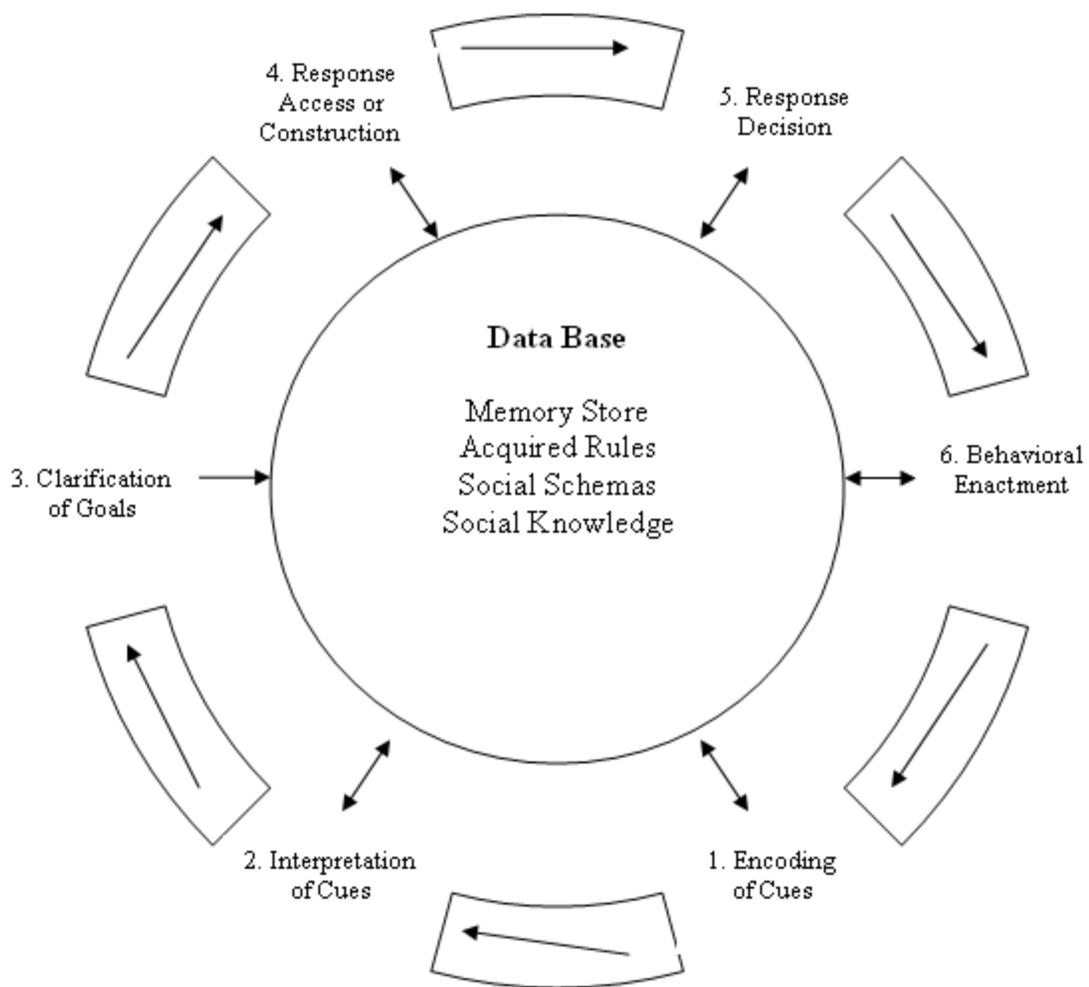


Figure 1-2. Social information processing model [Adapted from Crick & Dodge, 1994]

CHAPTER 2 METHODOLOGY

Research Hypotheses

This study examined deficits in social cognitive processing that may contribute to social competence deficits in socially withdrawn young children. Identification of these deficits will help to isolate processes that can be targeted for intervention. The purpose of this study was to explore whether the social cognitive processes of problem solving and emotion knowledge differ for socially withdrawn preschool children as compared to outgoing preschool children.

Specifically the following two hypotheses were addressed:

1. It is hypothesized that a difference exists in the social cognitive process of social problem solving for socially withdrawn preschool children versus outgoing preschool children. Specifically, socially withdrawn preschool children will identify fewer solutions to social problems than outgoing preschool children.
2. It is hypothesized that a difference does not exist in the social cognitive process of emotion knowledge (i.e., determining the emotional state of another person) for socially withdrawn preschool children versus outgoing preschool children. Specifically, socially withdrawn preschool children will recognize similar amounts of emotions as outgoing preschool children indicating that differences in empathy between these two groups may be related to a performance rather than a skill deficit.

Participants and Setting

Participants were 42 children ages 4 and 5 years old from seven preschool classrooms (around 4 children per classroom). They were children who were currently enrolled in voluntary preschool (VPK) programs in Alachua County, Florida. The sample consisted of 20 children, identified as socially withdrawn and 22 children identified as outgoing. To identify the participants, teachers were given a list describing socially withdrawn and outgoing characteristics and asked to identify 2 socially withdrawn and 2 outgoing children in their classrooms (Table 2-1 outlines characteristics). School records were screened for each participant to ensure that none of the participants had an identified disability. Child care centers

had been previously mandated by the state to implement Second Step Second Step: A Violence Prevention Curriculum (Committee for Children, 2002). Therefore participants may have received all or parts of this curriculum prior to conducting this study. Implementation of Second Step varied within classrooms and centers.

Children's demographic information was obtained through a short demographic questionnaire that was given to the children's teachers (Appendix A). Of the 42 child participants, 55% were female and 45% were male. Four year olds made up 55% of the sample and five year olds made up 45%. Regarding ethnicity, 76% of participants were European American, 12% Latino/Hispanic, 7% Asian American, and 5% African American. English was the primary language spoken in the home for 86% of participants, English and another language for 5% of participants, and another language (Spanish, Chinese, Bulgarian, Korean) for 10% of participants. Parent education level and income were not completed on over half of the questionnaires; therefore percentages for these categories are not reported. All children were in 4- and 5-year-old preschool classes at early childhood centers. Teachers ranged in education level and years of experience.

Recruitment

The researcher approached directors of eligible preschools and explained the needs of the study. Once agreement from the director was obtained, teachers were asked by the director to volunteer. In turn, teachers were asked to assist with recruiting by sending consent forms home with parents and collecting consent forms as they were returned. The parents of each child identified by the teacher as a possible participant in the study was given a consent form to fill out (Appendix B). Teachers who completed the ratings had been the child's primary teacher for at least one month.

Procedures

Measures

Three instruments were used for the descriptive assessments on children. These instruments examined the behavioral characteristics of children and the social cognitive processes of social problem solving and emotion knowledge being researched. They are the Social Skills Rating System-Preschool Level, the Early Childhood Social Cognitions Interview, and the Second Step Child Interview.

Social Skills Rating System-Preschool Level

Using the Social Skills Rating System-Preschool Level (SSRS-P; Gresham & Elliott, 1990), teachers rated the behaviors of the students they identified in their classroom in order to validate their choices. The SSRS provides a multi-rater assessment of student's social behaviors and comes in three levels, preschool, elementary, and secondary. The SSRS-P is a questionnaire designed to measure social behavior in preschool children age 3-5. The SSRS-P contains a 40-item teacher form and a 49-item parent form. The teacher form was the assessment used for this study. Each item utilizes a three-point Likert scale divided into two sections. In these two sections, teachers and parents are asked to rate how often a behavior occurs for a student as well as how important the behavior is for success in that teachers classroom or for that child's development. Two summary scales are provided: Social Skills and Problem Behaviors. For parents, subscales under the Social Skills section include Cooperation, Assertion, Responsibility and Self-Control. Subscales under the Problem Behaviors section include Internalizing and Externalizing. For teachers, subscales under the social skills section include Cooperation, Assertion, and Self-Control. Subscales under the Problem Behaviors section include Internalizing and Externalizing. The SSRS was standardized on 4,170 children total using self-ratings and ratings made by 1,027 parents and 259 teachers. The preschool standardization

sample was obtained from a national tryout of the SSRS where over 200 preschoolers were rated by teachers and parents. In the tryout sample ratings were collected in northeastern, midwestern, and southeastern states. In the national sample of the SSRS, teachers were 88% female, 90% white, and mostly from southern and north central states. Most teachers were experienced and 57% taught regular classrooms. The authors assert that interpretation of the SSRS can be made at the scale, subscale, and item level. Raw scores, Standard scores and percentile ranks can be obtained for both summary scales. There is also a section labeled behavior level that is used to determine if the child being rated exhibits fewer, average, or more skills and behaviors than the standardization sample comparison group. For the purposes of this study the raw scores and behavior level section were used. Using the behavior level section provided information on whether the child exhibited fewer, average, or more internalizing behaviors than the standardization comparison group and allowed for further identification of withdrawn children.

For the preschool form internal consistency reliability ranged from .90 to .91 for the Social Skills subscales, with the total scale estimate being .94 and .74 to .85 for the Problem Behaviors subscales, with the total scale estimate being .82. Test-retest reliability of the teacher form ranged from .75-.88 for the Social Skills subscales, with the total scale estimate being .85 and .76-.83 for the Problem Behaviors subscales, with the total scale estimate being .84. Inter-rater reliability indicates that there is less than 50% overlap between forms and points toward unique views from all raters on subjects being rated.

Evidence was found for content validity, social validity, criterion-related validity, and construct validity in the SSRS. Content validity came from importance ratings by teachers and parents as well as previous research in the area of children's social behavior. The scales of the SSRS are a good representative of items that could be used to measure the construct. The SSRS

can be used as a pre and post measure when implementing interventions and can also be used to determine behaviors and skills that are important to teachers, parents, and students for intervention. These characteristics make the measure socially valid. To determine criterion-related validity, relationships were investigated between the teacher form of the SSRS and the Social Behavior Assessment, Child Behavior Checklist-Teacher Report Form, and the Harter Teacher Rating Scale. Moderate to high correlations between the SSRS and other scales lend support for criterion-related validity. Evidence for construct validity was shown through internal consistency, correlation with other tests, factor analysis, and convergent and discriminant validity. Factor analysis for the preschool teacher rating form provides evidence for the factor structure of the SSRS.

Early Childhood Social Cognitions Interview

The Early Childhood Social Cognitions Interview (ECSCI) (Smith, Jones, Wojtalewicz, 2001) was used to assess empathy (emotion knowledge) and children's ability to solve problems in social situations. The ECSCI has three parts that measure the child's ability to determine emotional states, assume the perspective of another person, express care and concern for others, and problem solve in social situations. Pictures are shown and/or short stories are read to the children and then children are asked questions related to the pictures or situations. Several questions contain structured answers for the child to choose from and certain questions are open-ended asking the child to come up with as many answers as they can (Appendix C).

The ECSCI is scored on a point system, where a child earns points for each question. The amount of points that can be earned for each question varies. A total score can be obtained for each section, as well as the entire interview. Regarding solutions to problem solving and emotion knowledge questions, only distinct responses were counted. For the purposes of this study, a total

score for each section of the ECSCI was obtained so that scores of the outgoing group could be compared to scores of the withdrawn group.

A previous reliability analysis conducted using SPSS indicates a Cronbach alpha for the ECSCI of .80. The ECSCI was used to examine young children's social cognitions in a previous study (Wojtalewicz, 2004) and was shown to be valid for this purpose. The sample in the previous study consisted of 64 children, aged three to five years old, from Head Start classrooms in one county in Florida. Of the 64 children, 53.1% were male and 46.9% were female. Ethnic composition included 56.3% African American, 46.9% European American, 4.7% Hispanic, and 1.6% Asian. In this study the ECSCI was administered to children as a pre- and post-intervention measure. The ECSCI was also used in a study examining relational and physical aggression in young children (Harman, 2009) and was again shown to be valid. The sample in this study included children from early childhood centers and elementary schools. The ECSCI was used to measure children's level of perspective taking.

Second Step child interview

Second Step: A Violence Prevention Curriculum (Committee for Children, 2002) is a program designed to increase social competence in children by teaching children skills related to problem solving, empathy, and emotion management. There are four levels extending from preschool through middle school. For this study the preschool/kindergarten level was used. The Second Step Child Interview (Committee for Children, 2002) was utilized to assess problem solving and emotion knowledge. The assessment contains pictures depicting children in various social situations and emotional states. Children are shown the pictures and then asked questions related to problem solving and emotion knowledge.

In photo 1 the child is shown a picture and then read a short story about the picture. The child is first asked questions to determine if they understood the story. When that determination

is made the child is then asked questions related to how one child in the story feels and how that child can get a chance to play with the other children in the story. The child is then asked what would happen if the child in the photo pushed his/her way into the play group. Finally the child is asked to imagine themselves in the situation and then asked what they would do. In photo 2 the child is shown a picture and then read a short story about the picture. The child is first asked questions to determine if they understood the story. When that determination is made the child is then asked questions related to how one child in the story feels and how that child can get a chance to play with a toy the other child is playing with. The child is then asked what would happen if the child in the photo grabbed the toy away from the other child. Finally the child is asked to imagine themselves in the situation and then asked what they would do. In the remaining photos (3,4, and 5) a child is pictured depicting a certain emotional state. Children are then asked what emotion the child is displaying and how they know that.

A point scoring system similar to that used with the ECSCI was used. Children gained points based on the number of problem solving strategies they came up with as well as the number of emotions they identified. Only distinct responses were counted. For certain questions only a specific number of points were possible and for other questions points varied depending on the child's answers. A total number of points were calculated for problem solving as well as for empathy so that scores of the outgoing group could be compared to scores of the withdrawn group (Appendix D provides the scoring criteria used for this measure).

Research has shown the Second Step intervention increases prosocial skills, decreases physical aggression, increases positive peer interaction, and increases social competence (Frey, Nolen, Edstrom, & Hirschstein, 2005; Grossman et al., 1997; McMahon, Washburn, Felix, Yakin, & Childrey, 2000). Guiding theories for the program include social learning theory, social

information processing, and cognitive behavioral approaches (Committee for Children, 2002). Due to the programs substantial outcomes it has been mandated for use in all preschool classrooms throughout the county this research will be conducted in.

Reliability estimates for this procedure were obtained by calculating inter-rater reliability (IRR). IRR was calculated by having two raters independently score 25% (n=12) of the cases. The formula for calculation was: $\text{total number of agreements} / (\text{total number of agreements} + \text{total number of disagreements})$. Using this formula, inter-rater reliability was calculated to be 98% (i.e., $234/234+6=.98$) for the total scale, 99% (i.e., $119/119+1=.99$) for the questions measuring emotion knowledge, and 96% (i.e., $115/115+5=.96$) for the questions measuring social problem solving.

Data Collection Procedure

After the preschools to be used in the study were identified, the director of each preschool asked for teacher volunteers. Teachers obtained consent from parents of the four children they believed would be most appropriate for the study. To determine which children were appropriate, teachers were asked to identify two children who are socially withdrawn (e.g, often play alone, interact little with other children in the classroom, not social, etc.) and two children who are outgoing (e.g, play a lot with other children in the classroom, often interact in groups, very social, etc.). Once parental consent was obtained, teachers were given instruments and child assessments were scheduled.

All children were assessed in the preschool classroom and read an assent script prior to the assessments being given (Appendix E). Assessments were administered to children by the primary researcher, a doctoral candidate in the school psychology program and another graduate student in the same program. If possible, children were pulled aside to a private area or private room away from other students to complete measures. Care was taken in establishing rapport and

maintaining a level of comfort with each child participant in order to reduce anxiety connected to interacting with an unknown adult. The measures completed by the teacher were completed before or after school. Measures were given in a specified order and not varied. First the classroom teachers completed an SSRS and demographic sheet for each child they identified. The teacher also completed a subtype checklist for the two socially withdrawn children they identified (Appendix F). The data from this checklist was obtained in order to be used in analysis if results did not show significance. Next, the full Second Step Child Interview was administered to children to assess problem solving skills and emotion knowledge. Finally, the full ECSCI was administered and also assessed problem solving skills and emotion knowledge.

Data Analysis

The data were analyzed using SPSS General Linear Model procedures. Specifically, a one-tailed Multivariate Analysis of Variance (MANOVA) procedure was used to determine the effects of one independent variable on several dependent variables. The effects of children’s behavioral characteristics (socially withdrawn, outgoing) was examined in terms of their influence on children’s scores on three measures (Second Step Child Interview, ECSCI, Social Skills Rating System) which investigate social competence and two types of social cognitive processes (social problem solving, emotion knowledge). Pearson product-moment correlations and an ANOVA were conducted before the MANOVA to discern the need for data reduction.

Table 2-1. Group characteristics

Socially withdrawn	Outgoing
Often play alone	Often interact in groups
Interact and play little with other children in the classroom	Interact and play a lot with other children in the classroom
Not social	Very social
Quiet	Talkative

CHAPTER 3 RESULTS

The purpose of this study was to explore how children's behavioral characteristics in early childhood effect the expression of select social cognitive processes. Specifically, the current study examined how socially withdrawn young children differ with regard to problem solving skills and emotion knowledge when compared to outgoing young children.

Results are described below beginning with an overview of descriptive statistics related to participants. Next, correlations between SSRS standard scores, Second Step raw scores, social problem solving raw scores, emotion knowledge raw scores, and ECSCI raw scores as well as ANOVA analyses are presented and data reduction is discussed. Subsequently, results of MANOVA analyses used to test the main hypotheses are presented. A summary of major findings and the implications of these findings are discussed in the succeeding chapter.

Descriptive Statistics

Participant Characteristics

The 42 child participants were almost equally distributed with regards to gender, 23 girls and 19 boys, and age (4 year olds n=23, 5 year olds n=19). All children were in 4- and 5-year-old preschool classes at early childhood centers. Descriptive statistics for dependent variables were obtained (Table 3-1).

Data Reduction

Pearson product-moment correlations were used to examine the relationships between Second Step emotion knowledge scores, ECSCI emotion knowledge scores, Second Step social problem solving scores, and ECSCI social problem solving scores. Correlations were also used to examine the relationships between combined social problem solving scores from the Second Step form and the ECSCI, combined emotion knowledge scores from the Second Step form and

ECSCI, Second Step scores, ECSCI scores, SSRS Social Skills scores, and SSRS Problem Behavior scores.

Second Step emotion knowledge scores significantly correlated with ECSCI emotion knowledge scores ($r=.665, p=.000$), Second Step social problem solving scores ($r=.839, p=.000$), and ECSCI social problem solving scores ($r=.491, p=.001$). ECSCI emotion knowledge scores significantly correlated with Second Step social problem solving scores ($r=.703, p=.000$) and ECSCI social problem solving scores ($r=.338, p=.029$). Second Step social problem solving scores significantly correlated with ECSCI social problem solving scores ($r=.531, p=.000$). Table 3-2 depicts correlations that were found among major variables of interest.

Combined social problem solving scores significantly correlated with combined emotion knowledge scores ($r=.800, p=.000$), combined Second Step scores ($r=.959, p=.000$), combined ECSCI scores ($r=.727, p=.000$), and SSRS social skills scores ($r=.476, p=.001$). Specifically, as emotion knowledge scores increased, combined Second Step scores, combined ECSCI scores, and SSRS social skills scores tended to increase. Combined emotion knowledge scores significantly correlated with combined Second Step scores ($r=.858, p=.000$), combined ECSCI scores ($r=.970, p=.000$), and SSRS social skills scores ($r=.603, .000$). When combined Second Step scores increased, combined ECSCI scores and SSRS social skills scores tended to increase. Combined Second Step scores significantly correlated with combined ECSCI scores ($r=.740, p=.000$) and SSRS social skills scores ($r=.565, p=.000$). As combined Second Step scores increased, combined ECSCI scores and SSRS social skills scores tended to increase. Combined ECSCI scores significantly correlated with SSRS social skills scores ($r=.535, p=.000$). Again, when ECSCI scores increased, SSRS social skills scores tended to increase. SSRS social skills scores significantly correlated with SSRS problem behaviors scores ($r=-.718, p=.000$).

Specifically, as SSRS social skills scores increased, SSRS problem behaviors scores tended to decrease. Table 3-3 depicts correlations that were found among major variables of interest.

Emotion knowledge and social problem solving items from the Second Step measure were shown to be highly correlated with items measuring the same constructs from the ECSCI. Due to correlations supporting the hypothesized theoretical relationship between emotion knowledge items and social problem solving items, emotion knowledge and social problem solving items from both measures were combined to create a collective emotion knowledge score and collective problem solving score. The SSRS Problem Behaviors subscale did not correlate with social problem solving, emotion knowledge, Second Step, and ECSCI scores and was therefore excluded from the general linear model.

Statistical Assumptions

Based upon visual inspection of normal Q-Q plots, assumptions of normal distribution and linearity were met for all variables except combined social problem solving scores. This variable presented as negatively skewed. It is indicated that MANOVA is robust with respect to violations of normality, especially if there is at least 20 participants and the non-normality is caused by skewness rather than by outliers (Tabachnick & Fidell, 1996). Levene's Test for Equality of Variances and Box's Test of Equality of Covariance were non-significant ($p > .05$) for all DV's indicating assumptions of homogeneity of variances and covariances were met and main effects can be interpreted with confidence. For the reasons cited above, the use of analysis of variance and multiple analysis of variance was deemed appropriate.

Analysis of Variance

One way-analysis of variance (ANOVA) was utilized to assess the SSRS Social Skills subscale scores and Problem Behaviors subscale scores of withdrawn young children as compared to outgoing young children. Results indicated a significant difference between groups

for the Social Skills subscale ($F=7.844$, $p=.008$). This suggests that withdrawn preschool children (mean social skills raw score = 31.65, $SD = 9.08$) exhibited less social skills than outgoing preschool children (mean social skills score = 41.22, $SD = 12.59$). No significant difference was found between groups for the Problem Behaviors subscale (Table 3-4).

Multiple Analysis of Variance

In order to test the hypotheses, variables were entered into a MANOVA to test for main effects of behavioral characteristics (i.e., withdrawn or outgoing) on social cognitive processes. A MANOVA was chosen because the dependent variables (i.e., emotion knowledge, social problem solving, social skills) are interrelated (Pearson Correlations of .800, .476, .603, $p<.01$). Effect sizes reported ($r=.441$, .375, .508) indicate a medium to large strength of relationships between behavioral characteristic and dependent variables (Cohen, 1992). Coefficients of Determination (r^2) indicated that 19% of the total variance in social problem solving scores can be explained by behavioral characteristic, 14% of the total variance in emotion knowledge scores can be explained by behavioral characteristic, and 25% of the total variance in SSRS social skills scores can be explained by behavioral characteristic. Results of the multivariate tests indicate that behavioral characteristic did have a significant effect on social cognitions and social skills (Table 3-5).

Hypothesis 1: Social Problem Solving in Withdrawn versus Outgoing Preschoolers

The first hypothesis stated that a difference would exist in the social cognitive process of social problem solving for socially withdrawn preschool children versus outgoing preschool children. Specifically, socially withdrawn preschool children would identify fewer solutions to social problems than outgoing preschool children. Results of the MANOVA showed a main effect for behavioral characteristic of the child on social problem solving ($F(1, 42) = 8.157$, $p=.007$). This suggests that withdrawn preschool children (mean social problem solving score =

9.35, SD = 5.32) identified fewer solutions to social problems than outgoing preschool children (mean social problem solving score = 13.36, SD = 3.76). These results provide substantiation for hypothesis one and lend credibility to the importance of early intervention with socially withdrawn young children to support development of social cognitive processes.

Hypothesis 2: Emotion Knowledge in Withdrawn versus Outgoing Preschoolers

The second hypothesis stated that a difference would not exist in the social cognitive process of emotion knowledge (determining the emotional state of another person) for socially withdrawn preschool children versus outgoing preschool children. Specifically, socially withdrawn preschool children would recognize similar amounts of emotions as outgoing preschool children, indicating that differences in empathy between these two groups are related to a performance rather than a skill deficit. Results of the MANOVA showed a main effect for behavioral characteristic of the child on emotion knowledge ($F(1, 42) = 5.705, p = .022$). This suggests that withdrawn preschool children (mean emotion knowledge score = 22.75, SD = 10.89) exhibited less emotion knowledge than outgoing preschool children (mean emotion knowledge score = 30.81, SD = 10.08). These results do not provide substantiation for hypothesis two and suggest that socially withdrawn children may not possess the skills to correctly identify emotions. Gender was included as another independent variable in order to test for interaction effects. However, no significant differences for gender were found.

Summary

This study examined the relationship between behavioral characteristics in preschool age children and maturity of specific social cognitive processes. Hypotheses tested include: (1) socially withdrawn children will identify fewer solutions to social problems than outgoing children and (2) socially withdrawn children will identify similar amounts of emotions as outgoing children.

Pearson product-moment correlations and ANOVA analysis were used and indicated the need for data reduction. MANOVA results indicated support for only the first hypothesis made. Withdrawn children identified fewer solutions to social problems than outgoing children and showed significantly less emotion knowledge than outgoing children.

Table 3-1. Descriptive statistics for dependent variables

	Mean	Standard deviation
Combined Social Problem Solving Score	11.45	4.94
Combined Emotion Knowledge Scores	26.97	11.12
SSRS Social Skills Scores	95.26	16.21

Table 3-2. Pearson product-moment correlations

	Second Step Emotion Knowledge	ECSCI Emotion Knowledge	Second Step Social Problem Solving	ECSCI Social Problem Solving
Second Step Emotion Knowledge	1.000	.665**	.839**	.491**
ECSCI Emotion Knowledge		1.000	.703**	.338*
Second Step Social Problem Solving			1.000	.531**
ECSCI Social Problem Solving				1.000

*indicates significant at the .05 level, ** indicates significant at the .01 level

Table 3-3 Pearson product-moment correlations

	Combined Social Problem Solving Scores	Combined Emotion Knowledge Scores	Combined Second Step Scores	Combined ECSCI Scores	SSRS Social Skills Scores	SSRS Problem Behavior Scores
Combined Social Problem Solving Scores	1.000	.800**	.959**	.727**	.476**	-.175
Combined Emotion Knowledge Scores		1.000	.858**	.970**	.603**	-.256
Combined Second Step Scores			1.000	.740**	.565**	-.247
Combined ECSCI Scores				1.000	.535**	-.203
SSRS Social Skills Scores					1.000	-.718**
SSRS Problem Behavior Scores						1.000

*indicates significant at the .05 level, **indicates significant at the .01 level

Table 3-4. ANOVA results

	df	SS	F	Significance
SSRS Social Skills Scores	1	960.920	7.844	.008
SSRS Problem Behaviors Scores	1	.022	.001	.974

Table 3-5. MANOVA results

	df	SS	F	Significance
Combined Social Problem Solving Scores	1	172.731	8.157	.007
Combined Emotion Knowledge Scores	1	648.774	5.705	.022
SSRS Social Skills Scores	1	927.859	8.115	.007

CHAPTER 4 DISCUSSION

Becoming socially competent is a crucial task of early childhood and predicts future social and academic outcomes (Attili, 1990; Blair, Denham, Kochanoff, & Whipple, 2004; McWayne, Fantuzzo, & McDermott, 2004). For socially withdrawn children, this task may be difficult to achieve. These children not only exhibit deficits in social competence (Coplan, Findlay, & Nelson, 2004; Hughes, 1990; Kemple, 1995; Kim, 2003; Klima & Repetti, 2008; Rose-Krasnor, 1997), but also experience negative social outcomes in adulthood (Asendorpf, Denissen, & van Aken, 2008; Biederman et al., 2001; Caspi, Moffitt, Newman, & Silva, 1996; Hymel, Rubin, Rowden, & LeMare, 1990; Moehler et al., 2008). Deficits in social cognitions have also been linked to social competence difficulties (Crick & Dodge, 1994; Dodge & Price, 1994); however, limited research is available on the relationship between social withdrawal, social competence, and social cognitions in young children. In their review of the literature, Rubin and Coplan (2004) point out how researchers have begun to highlight the importance of studying social withdrawal and social competence in young children.

The purpose of this study was to explore how children's behavioral characteristics in early childhood affected the expression of select social cognitive processes. Findings will be discussed below concerning how socially withdrawn young children differed with regard to problem solving skills and emotion knowledge when compared to outgoing young children.

Social Problem Solving

The first hypothesis focused on differences in social problem solving capability between socially withdrawn and outgoing children and predicted that a difference exists in the social cognitive process of social problem solving for socially withdrawn preschool children versus outgoing preschool children. Specifically, socially withdrawn preschool children were expected

to identify fewer solutions to social problems than outgoing preschool children. Research on social problem solving encompasses several categories including social goals, causal attributions, and intent attributions. Prior studies have indicated that withdrawn elementary age children exhibit an internal locus of control in terms of their social difficulties and failures, believe that harm in ambiguous situations is caused accidentally, display difficulty with peer group entry, and endorse avoidant social goals and adult-seeking strategies in conflict situations (Burgess et al., 2006; Erdley and Asher, 1994; Erdley and Asher, 1996; Kazura and Flanders, 2007; Putallaz and Gottman; 1981; Wichmann, Coplan, and Daniels, 2004). Crick and Dodge (1994) discuss how socially maladjusted children exhibit deficits during several stages in the Social Information Processing Model that likely interfere with their social problem solving capability. These deficits include memory deficits that interfere with the encoding of social cues, attention to certain social cues and not to others, and engrained schema that hinder the ability to grasp immediate social cues during a situation.

Results of the current study supported the hypothesis and indicated that the two groups of children differed on their social problem solving ability. Specifically, withdrawn preschool children identified fewer solutions to social problems than outgoing preschool children. This finding is consistent with literature stating that withdrawn children generate a small number of, often ineffective, solutions to problems whereas socially competent children generate a variety of solutions to problems and choose the most effective solution to implement (Richard & Dodge, 1982; Rubin & Coplan, 2004; Spivack & Shure, 1974). From a qualitative perspective, answers on the problem solving portions of both survey measures used reflected results consistent with research. Withdrawn children tended to identify one solution to the presented problem or stated they didn't know how to solve the problem whereas outgoing children often identified two or

more solutions. Withdrawn children's solutions often endorsed avoidance goals (e.g., "Wait until he is done," "Tell her mom") and withdrawn children often repeated the same solution to a variety of problems presented. Outgoing children's responses reflected assertive goals and they offered a broader range of solutions (e.g., "Ask her nicely," "Take it from her," "Ask to share").

Emotion Knowledge

The second hypothesis focused on differences in emotion knowledge between socially withdrawn and outgoing children and predicted that a difference does not exist in the social cognitive process of emotion knowledge (i.e., determining the emotional state of another person) between the two groups of children. Specifically, socially withdrawn preschool children were expected to recognize similar amount of emotions as outgoing preschool children indicating that differences in empathy between these two groups may be related to a performance rather than a skill deficit. Prior studies have indicated that withdrawn children elicit empathy from teachers and peers (Chang, 2003; Goossens et al., 2002; Graham & Hoehn, 1995) however research has failed to address displays of empathy and understanding of emotions in socially withdrawn young children. A study done by Findlay et al. (2006) found that withdrawn children are less likely to respond to peers in empathic ways. The researchers hypothesized that withdrawn children possessed skills for emotion knowledge but anxiety prevented them from translating emotion knowledge skills into empathic actions.

Results of the current study did not support the hypothesis and indicated a difference for emotion knowledge between the two groups of children. Socially withdrawn children displayed significantly less emotion knowledge than outgoing children. Several explanations for this result are possible. First, withdrawn children may possess both a skill and performance deficit with regards to emotion knowledge. Many of the withdrawn children in the study were able to correctly identify common emotions (i.e., happy, sad, angry) but displayed difficulty describing

why the child was feeling the emotion they named. Withdrawn children also displayed difficulty identifying more complex emotions (i.e., surprised, afraid). This is in line with research findings suggesting that young children consistently identify basic emotions and are better able to identify positive emotions over negative emotions, especially fear (Denham & Couchoud, 1990; Ridgeway, Waters, Kuczaj, 1985; Stifter & Fox, 1986).

Social learning theory (Bandura, 1977) explains that behavior is influenced by a combination of social and psychological factors which contribute to an individual choosing to observe and model a behavior as well as add the behavior to their social repertoire. It is possible that socially withdrawn children display a skill deficit in terms of recognizing more complex emotion knowledge skills but display a performance deficit in terms of behaviorally enacting simple emotion knowledge skills they already possess. For socially withdrawn children the performance part of the deficit typically stems from anxiety based emotions. The findings in this study contrast research suggesting that socially withdrawn children do not display difficulty in processing social situations, including another's emotional state, but do exhibit difficulty regulating their emotions during these situations which may cause withdrawn children's reluctance in engaging in empathic behaviors (Findlay et al., 2006; Wichmann, Coplan, and Daniels, 2004).

Studies of elementary age children have shown a link between low emotion knowledge and internalizing behaviors (Fine, Izard, Mostow, Trentacosta, & Ackerman, 2003; Schultz, Izard, Ackerman, & Youngstrom; 2001). Findings of the current study, suggesting socially withdrawn children may exhibit difficulty recognizing and processing other children's emotions during social situations, support this link. Literature also suggests, however, that withdrawn children display difficulty regulating their own emotional states, will often experience anxiety in social

situations, and tend to display avoidant social goals (Erdley and Asher, 1994, 1996; Gresham, 1986). Therefore, it is still possible that anxiety and a tendency to avoid emotionally intensive situations interferes with withdrawn children's ability to process and/or act on other's emotions and leads to a performance deficit.

A high amount of variability was found for emotion knowledge scores across groups. Early childhood is the time that children are acquiring skills for recognizing, understanding, and processing emotions and due to differences in the rate of learning during this time as well as compounding factors such as language acquisition and cognitive ability (Bennet, Bendersky, & Lewis, 2005; Cook, Greenberg, & Kusche, 1994; Eisenberg, Sadovsky, & Spinrad, 2005; Pons, Lawson, Harris, Rosnay, 2003), children's emotion knowledge at early ages varies (Denham & Couchoud, 1990; MacDonald, Kirkpatrick, & Sullivan, 1996; Misailidi, 2006; Ridgeway, Waters, & Kuczaj, 1985). It is possible that the mixture of ages in the sample reflected overall differences in emotion knowledge seen in young children irrelevant of differences in behavioral characteristics. It is also possible that some of the children in the study did not have the language capability and/or the cognitive capability to describe emotions, especially complex ones, and the difference found between groups actually reflects a difference in language capability instead of a difference based on behavioral characteristic. Finally, it may be that withdrawn children experienced anxiety while being interviewed which interfered with their ability to identify and explain emotions. All of these theories are difficult to discern due to the lack of literature to date examining emotion knowledge in withdrawn young children and denotes a need for larger samples and more discriminate measures of emotion knowledge in future studies.

Limitations

Limitations existed within the design of the current study. Rubin and Coplan (2004) state that research in the area of social withdrawal is "plagued with conceptual and methodological

difficulties...including extremely small sample sizes...sole reliance on teacher referrals to identify withdrawn children...and problems with operational definitions and assessments of social withdrawal that likely result in heterogeneous treatment groups” (p. 523). The current study did not examine mediating and moderating factors such as cognitive ability, language ability, parent education level, socioeconomic status, culture, and emotion. The mediating and moderating factors of age and gender were excluded from analyses or produced non-significant results due to limitations in the research design. A small sample size reduced power and the ability to find results when gender was added as a covariate. Age was only obtained in years, not months, and therefore could not be controlled for. Research has indicated that social cognitive processes and how children react in social situations changes over time with different skills increasing and decreasing in importance at varying ages (Crick & Dodge, 1994; Eisenberg and Harris, 1984). Because changes occur so frequently within the developmental period of early childhood it is possible that if age had been added as a covariate it would have significantly impacted results.

The most common language spoken in the home was English; however, six participants reported a primary language other than English. Three of these participants were labeled as withdrawn. It is possible that language interfered with these children’s ability to communicate and led to the perception that they were withdrawn, when in fact they were not. Five children identified as withdrawn were of an ethnicity that is typically described as culturally collectivistic. Research points to differences in how social withdrawal is viewed culturally. Collectivistic cultures often regarding shyness as a positive trait that is associated with peer acceptance (Burgess et al, 2001; Chen, Rubin, & Sun, 1992; Chen, Hastings, Rubin, Chen, Cen, & Stewart, 1998). Cultural differences may have played a role in teacher’s interpretations of social

withdrawal. Teachers may have rated some of these children as socially withdrawn when in fact their withdrawal represented compliance associated with cultural norms instead of a lack of interaction.

A final limitation within the design of the study was not including parent reports and relying on the sole use of teacher reports to identify withdrawn children. Teachers also filled out demographic data sheets on the children identified. Having parents fill out demographic sheets would have yielded more accurate and complete demographic data. Similarly, collecting information from parents on their children's behavior at home and in the community would have led to a better designation of withdrawn children.

Data was collected in early childhood centers that were similar in regards to demographics, daily operation, and teaching methods. The sample in this study was collected in a small town and populations in the early childhood centers were not representative of the overall population in terms of socioeconomic status or ethnicity. Due to these factors, the results of this study may not generalize to other populations.

Several limitations were noted with regards to measurement. First, complexity exists with measuring and assessing social withdrawal due to the lack of consensus on an operational definition of the construct (Rubin & Coplan, 2004; Younger, Schneider, Wadeson, Guirguis, & Bergeron, 2000). Although teachers were given a sheet with descriptive characteristics for each behavioral characteristic, many teachers expressed difficulty identifying socially withdrawn children in their classroom. Prevalence estimates for social withdrawal in children are difficult to ascertain and have been stated as ranging from 20-40% (Sanson et al., 1996; Swallow, 2000). It is possible that many of the classrooms used in the study did not contain socially withdrawn

children and that many of the children identified by teachers as withdrawn did not actually exhibit true social withdrawal.

The methods used to determine social withdrawal (i.e., teacher report and ratings on the Social Skills Rating Scale) yielded ambiguous results and did not clearly delineate socially withdrawn children from outgoing children. Teacher ratings on the Internalizing subscale of the Problem Behaviors scale of the SSRS were often in the average range for children teacher's identified as withdrawn. Only five children identified as withdrawn were rated as exhibiting more internalizing behaviors than the average for the standardization sample comparison group. This indicated that either, teachers described certain children as withdrawn but did not actually feel these children exhibited more internalizing behaviors than the average for the standardization sample comparison group, or the Internalizing subscale was not sensitive enough to separate the two groups of children in the sample.

The Social Skills Scale, however, did show significantly different results between groups. Teachers may not have actually considered children identified as withdrawn, withdrawn by definition, but instead considered these children the least outgoing in the classroom. Since a significant difference between groups was found with regards to overall social skills, it is also possible that teachers determined outgoing children versus socially withdrawn children based on differences in social skills that withdrawn children typically display difficulty with, but that are not included in the Internalizing subscale. If this is the case, identification of social withdrawal by teachers may have been more accurate than previously suggested. A larger sample combined with more sensitive measures of withdrawal would have allowed for a better distinction between groups.

The two interviews used to determine emotion knowledge and social problem solving ability were highly similar and not standardized. This limited the amount of distinct data obtained. The social problem solving measures also produced a negatively skewed distribution which may have reduced statistical power. The distribution for social problem solving scores was most likely skewed because children were in well funded early childhood centers that were implementing a curriculum that contained social problem solving as a component. Therefore, social problem solving scores for all children, regardless of behavioral characteristic, tended to fall in a higher range than typical. Research has also pointed to the importance of using varied procedures to obtain a proper estimate of young children's emotion knowledge due to differences in language and cognition at varying ages. Using standardized and/or widely used problem solving and emotion knowledge measures along with the interviews used in this study may have yielded stronger or different results.

Another limitation involved the SSRS form used. Children in the study attended early childhood centers and ranged in age from 4-5 years old. The Preschool Level form of the SSRS was used over the Elementary Level form due to five year old children in the study attending early childhood centers and not kindergarten. This presents as a limitation due to the fact that normative data for the Preschool level form only includes children up to age four years eleven months. Raw scores were used in analyses due to the fact that standard scores obtained for five year old children would not be accurate.

Future Research Directions

Future research is needed in the area of social withdrawal and social cognitions in order to develop effective interventions for socially withdrawn young children. Rubin and Coplan (2004) state that "future prevention and intervention programs should begin in early childhood, include a focus not only on teaching skills but also on emotion regulation, involve both familiar

and unfamiliar peers, and include a substantive parental component” (p. 523). Future studies should obtain a larger sample in order to increase statistical power and detect actual differences between groups. Along with this, complete demographic data could be collected from children’s caregivers in order to explore mediating and moderating factors such as age, gender, socioeconomic status, and ethnicity.

This study attempted to identify subgroups of social withdrawal but was unsuccessful due to teacher’s expressed difficulties with identifying children who met the criteria for social withdrawal. Research points to varying outcomes for various subtypes of social withdrawal, with some subtypes showing no negative outcomes. Due to this fact, it is important for future research to examine differences in social cognition among subgroups of social withdrawal by using a thorough measure that discriminates subtypes more accurately.

In the current study difficulties were noted in terms of identifying social withdrawal in children. Efforts to create a valid and reliable measure of young children’s social withdrawal should be made. Additionally, if no measure is available observations and parent ratings could be combined with teacher ratings for a more comprehensive assessment. Valid and reliable measures of social problem solving and emotion knowledge in young children should also be sought out.

Research aimed at studying the interaction between social withdrawal and other social cognitive processes is important and may produce a better understanding of the path socially withdrawn children follow in social information processing models such as Crick and Dodge’s (1994). This may also provide insight into whether socially withdrawn children exhibit performance or skill deficits during social interactions. Research solely investigating the idea of performance versus skill deficits in socially withdrawn children is also needed. Finally, along

with further research on emotion knowledge in socially withdrawn young children, empathic reactions of socially withdrawn young children should be reviewed further. It is important to understand not only whether withdrawn children can differentiate emotions but also their reactions to varying emotions in others. In sum, research examining social withdrawal and social cognitions in young children should be promoted in an effort to develop effective interventions for these children and prevent harmful life course patterns.

APPENDIX A
DEMOGRAPHIC QUESTIONNAIRE

PLEASE ANSWER THE FOLLOWING DEMOGRAPHIC ITEMS TO THE BEST OF YOUR KNOWLEDGE:

1. Child's age:

- 4 years old
- 5 years old

2. Child's gender:

- male
- female

3. Child's ethnicity:

- African American, African, Jamaican, Haitian, Black
- Asian American
- European American
- Latino/Hispanic
- Native American
- Middle Eastern
- Pacific Islander (Samoan, Tongan, etc.)
- Multiethnic, be specific _____

4. The primary language that is spoken in the child's home: _____

5. The highest educational level completed by the child's parents:

- Eighth Grade
- Some High School
- High School Graduate
- Some College or Technical School
- College Graduate
- Post Graduate Degree (for example: Master's, Doctoral)

6. The child's family's income level:

- under \$10,000
- \$10,000 - \$ 29,999
- \$30,000 - \$49,000
- \$50,000 - \$99,999
- \$100,000 or over

APPENDIX C
CONTENT AND SCORING CRITERIA FOR THE ECSCI

Content of the ECSCI (Wojtalewicz, 2004)

A. The ability to determine the emotional state of another person
1. Part A: Recognize overt expressions of emotions: show child pictures of children and ask how they are feeling. Emotions include happy, sad, angry, surprise, and afraid
1. Part B: Verbalize the cues used to determine emotion: Ask, “How can you tell that the person is _____?” “What about the person’s face/body tells you that he/she is feeling _____?”
2. Part A: Recognizes that feelings can change, and why it happens. Say, “When Juan first got to school today, he was crying. His teacher gave him a hug, and he started smiling.”
a. How did Juan feel when he got to school? b. Why do you think he might have felt _____ ? c. How did Juan feel after his teacher gave him a hug? d. Why do you think he might have felt _____ ?
B. The ability to assume the perspective and role of another person
1. Part A: Recognize that different people have different feelings about the same thing: show picture of two children and say, “Jessica loves clow8ns, but Tyler is afraid of them, Their teacher tells them that their class will be going to a circus, and that there will be lots of clowns there. How do you think Jessica will feel? How do you think Tyler will feel?”
1. Part B: Express care and concern for others: Ask, “How could Jessica help Tyler to feel better?”
C. The ability to problem solve social situations: Show each sheet of pictures to child and say: “This is _____ (name for child A). This is _____ (name for child B). Can you tell me what toy this is? (Picture of toy). Say “Yes, a _____.” “Now, _____ (name for child A) has been playing with this (picture of toy) for a long time and _____ (name for child B) wants a chance to play with it. But (name for child A) keeps on playing with it. What can _____ (name for child B) do so s/he can have a chance to play with the toy?”
“That’s one way. Now the idea of this game is to think of lots of ways to get a chance to play with toys, OK? What else could _____ (name for child B) do?”

Scoring Criteria for the ECSCI

<p>A. The ability to determine the emotional state of another person</p> <p>1. Part A: One point is given for labeling the correct emotion. If wrong label is provided no points are given for this section (Part A & B).</p> <p>Part B: If the child gives physical attributes as cues for determining feelings (i.e., smiling, showing teeth, etc.) he or she earn two points. If child gives another reason for the feeling the child earns one point.</p> <p>2. Part A: A maximum of 4 points are possible for this section.</p> <p>i) How did Juan feel when he got to school? 1 point for “sad” or “angry.”</p> <p>ii) Why do you think he might have felt that way? 1 point for any logical answer (e.g., he missed his mommy; he did not want to be in school, etc.).</p> <p>iii) How did Juan feel after his teacher gave him a hug? 1 point for “happy.”</p> <p>iv) Why do you think he might have felt that way? 1 point for any logical answer (e.g., teacher made him feel happy, gave him a hug, etc.).</p>
<p>B. The ability to assume the perspective and role of another person</p> <p>1. People have different feelings: 1 point for identifying any positive feeling associated with Jessica; 1 point for identifying any negative feeling for Tyler; 1 point for identifying a positive way that Jessica could help Tyler to feel better.</p>
<p>C. The ability to problem solve social situations</p> <p>1. One point for any answer (either positive or negative) that relates what child B can do to get a chance to play with toy that child A is using.</p> <p>2. One point per answer to participant’s ability to identify other options to obtain desired toy.</p>

APPENDIX D
SCORING GUIDELINES FOR THE SECOND STEP INTERVIEW

A. Emotion Knowledge

- 1) Questions **1, 2, 8, 9, 14, 15, 16, 17, 18, 19**
- 2) One point for identifying a correct emotion
- 3) One point for each distinct example the child gives of how he/she can tell the child in picture is feeling the identified way (there is no score cutoff, the child is given 1 point for each example given)
- 4) Add scores to obtain a total Emotion Knowledge score

B. Problem Solving

- 1) Questions **3, 4, 5, 6, 7, 3, 10, 11, 12, 13, 20**
- 2) One point for each distinct example the child gives for all problem solving questions (there is no score cutoff, the child is given 1 point for each example given)
- 3) Add scores to obtain a total Problem Solving score

APPENDIX E
CHILD ASSENT SCRIPT

(Researchers will spend some time in the classroom, playing and interacting with the children, before inviting a child to interview.)

My name is _____. I work at the University of Florida. I have some pictures and some really short stories I would like to tell you. Would you like to come sit at the table with me, and I will show you the pictures and tell the stories? We can stop any time you want to.

If child assents, and after first story: I'd like to ask you some questions about these stories. You don't have to answer them if you don't want to. Can I ask you some questions?

APPENDIX F
SUBTYPES CHECKLIST

Place a checkmark next to the subtype that most accurately describes the characteristics the child you identified as socially withdrawn exhibits:

<p>_____ Solitary-passive withdrawal, unsociable, social disinterest, passive isolation</p> <ul style="list-style-type: none"> ▪ Exploration of objects and/or constructive activity while playing alone, prefer object play to social play ▪ Do not mind playing with other children, but they would rather play alone ▪ These children perform poorly during people-oriented social tasks (e.g., show and tell)
<p>_____ Reticence, passive-anxious, conflicted shyness, social inhibition</p> <ul style="list-style-type: none"> ▪ Onlooking (prolonged looking at peers without accompanying play) or being unoccupied (doing nothing) ▪ Social fear and anxiety in a social context ▪ Temperamentally shy children ▪ Want to play with other children but are inhibited ▪ Neglected by peers
<p>_____ Active isolation, active-isolates</p> <ul style="list-style-type: none"> ▪ Appear withdrawn from social interaction because their peers are not allowing them to play ▪ Would like to play with other children but cannot find willing partners ▪ Rejected by peers
<p>_____ Sad-depressed, solitary-active</p> <ul style="list-style-type: none"> ▪ Do not value peer interaction and actively avoid peers ▪ Self-isolating, timid, and immature ▪ Rejected by peers

LIST OF REFERENCES

- Achenbach, T. M. (1978). The child behavior profile: I. Boys aged 6-11. *Journal of Consulting and Clinical Psychology, 46*(3), 478-488.
- Adalbjarnardottir, S. (1995). How school children propose to negotiate: The role of social withdrawal, social anxiety, and locus control. *Child Development, 66*(6), 1739-1751.
- American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)*. Washington, DC: American Psychiatric Association.
- Anderson, S. & Messick, S. (1974). Social competency in young children. *Developmental Psychology, 10*(2), 282-293.
- Asendorpf, J. B. (1990). Beyond social withdrawal: Shyness, unsociability, and peer avoidance. *Human Development, 33*, 250-259.
- Asendorpf, J. B., Denissen, J. J. A., & van Aken, M. A. G. (2008). Inhibited and aggressive preschool children at 23 years of age: Personality and social transitions into adulthood. *Developmental Psychology, 44*(4), 997-1011.
- Asher, S. (1985). An evolving paradigm in social skill training research with children. In B. H. Schneider, K. H. Rubin & J. E. Ledingham (Eds.), *Children's peer relations: Issues in assessment and intervention* (pp. 157-174), New York: Springer-Verlag.
- Asher, S. R., & Hymel, S. (1981). Children's social competence in peer relations: Sociometric and behavioral assessment. In J. D. Wine & M. D. Smye (Eds.), *Social competence* (pp. 125-157). New York: Guilford Press.
- Attili, G. (1990). Successful and disconfirmed children in the peer group: Indices of social competence within an evolutionary perspective. *Human Development, 33*, 238-249.
- Attili, G., Vermigli, P., & Schneider, B. H. (1997). Peer acceptance and friendship patterns among Italian schoolchildren within a cross-cultural perspective. *International Journal of Behavioral Development, 21*(2), 277-288.
- Bandura, A. (1969). *Principles of behavior modification*. New York: Holt, Rinehart & Winston.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Banerjee, R., & Henderson, L. (2001). Social-cognitive factors in childhood social anxiety: A preliminary investigation. *Social Development, 10*(4), 558-572.
- Beer, J. S. (2002). Implicit self-theories of shyness. *Journal of Personality and Social Psychology, 83*(4), 1009-1024.

- Bennett, D. S., Bendersky, M., & Lewis, M. (2005). Antecedents of emotion knowledge: Predictors of individual differences in young children. *Cognition and Emotion, 19*(3), 375-396.
- Berger, K. (2005). *The developing person through the lifespan* (6th ed.). New York: Worth.
- Biederman, J., Hirshfeld-Becker, D. R., Rosenbaum, J. F., Herot, C., Friedman, D., Snidman, N., Kagan, J., & Faraone, S. V. (2001). Further evidence of association between behavioral inhibition and social anxiety in children. *American Journal of Psychiatry, 158*, 1673-1679.
- Blair, R. J. R., & Coles, M. (2000). Expression recognition and behavioural problems in early adolescence. *Cognitive Development, 15*, 421-434.
- Blair, K. A., Denham, S. A., Kochanoff, A., & Whipple, B. (2004). Playing it cool: Temperament, emotion regulation, and social behavior in preschoolers. *Journal of School Psychology, 42*, 419-443.
- Brophy, J. (1995). *Elementary teachers' perceptions of and reported strategies for coping with twelve types of problem students*. Chicago, IL: Institute for Research on Teaching. (ERIC Document Reproduction Service No. ED389390)
- Brophy, J. (1996). *Working with shy or withdrawn students* (Report No. EDO-PS-96-14). Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education. (ERIC Document Reproduction Service No. ED402070)
- Burgess, K. B., Rubin, K. H., Chea, C. S., & Nelson, L. J. (2001). Behavioral inhibition, social withdrawal, and parenting. In W. R. Crozier, & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness* (pp.137-158). New York: John Wiley & Sons Ltd.
- Burgess, K. B., Wojslawowicz, J. C., Rubin, K. H., Rose-Krasnor, L., & Booth-LaForce, C. (2006). Social information processing and coping strategies of shy/withdrawn and aggressive children: Does friendship matter? *Child Development, 77*(2), 371- 383.
- Burks, V. S., Laird, R. D., Dodge, K. A., Pettit, G. S., & Bates, J. E. (1999). Knowledge structures, social information processing, and children's aggressive behavior. *Social Development, 8*(2), 220-236.
- Caspi, A., Elder, G. H., & Bem, D. J. (1988). Moving away from the world: Life-course patterns of shy children. *Developmental Psychology, 24*(6), 824-831.
- Caspi, A., Harrington, H., Milne, B., Amell, J. W., Theodore, R. F., & Moffitt, T. E. (2003). Children's behavioral styles at age 3 are linked to their adult personality traits at age 26. *Journal of Personality, 71*(4), 495-513.

- Caspi, A., Moffitt, T. E., Newman, D. L., & Silva, P. A. (1996). Behavioral observations at age 3 years predict adult psychiatric disorders. *Archives of General Psychiatry*, *53*, 1033-1039.
- Chang, L. (2003). Variable effects of children's aggression, social withdrawal, and prosocial leadership as functions of teacher beliefs and behaviors. *Child Development*, *74*(2), 535-548.
- Cheek, J. M., & Melchior, L. A. (1990). Shyness, self-esteem, and self-consciousness. In H. Leitenberg (Ed.), *Handbook of social and evaluation anxiety* (pp. 47-82). New York: Plenum.
- Chen, X., Hastings, P. D., Rubin, K. H., Chen, H., Cen, G., & Stewart, S. L. (1998). Child-rearing attitudes and behavioral inhibition in Chinese and Canadian toddlers: A cross-cultural study. *Developmental Psychology*, *34*(4), 677-686.
- Chen, X., Rubin, K. H., & Sun, Y. (1992). Social reputation and peer relationships in Chinese and Canadian children: A cross-cultural study. *Child Development*, *63*, 1336-1343.
- Choi, D. H., & Kim, J. (2003). Practicing social skills training for young children with low peer acceptance: A cognitive-social learning model. *Early Childhood Education Journal*, *31*, 41-46.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.
- Cohen, N. J., Menna, R., Vallance, D. D., Barwick, M. A., Im, N., & Horodezky, N. B. (1998). Language, social cognitive processing, and behavioral characteristics of psychiatrically disturbed children with previously identified and unsuspected language impairments. *Journal of Child Psychology and Psychiatry*, *39*(6), 853-864.
- Coll, C. G., Kagan, J., & Reznick, J. S. (1984). Behavioral inhibition in young children. *Child Development*, *55*, 1005-1019.
- Committee for Children (2002). *Second Step: A violence prevention curriculum: Preschool/kindergarten teacher's guide*. Seattle: Committee for Children.
- Cook, E. T., Greenberg, M. T., & Kusche, C. A. (1994). The relations between emotional understanding, intellectual functioning, and disruptive behavior problems in elementary-school-aged children. *Journal of Abnormal Child Psychology*, *22*(2), 205-219.
- Coplan, R. J., Findlay, L. C., & Nelson, L. J. (2004). Characteristics of preschoolers with lower perceived competence. *Journal of Abnormal Child Psychology*, *32*(4), 399-408.
- Coplan, R. J., Girardi, A., Findlay, L. C., & Frohlick, S. L. (2007). Understanding solitude: Young children's attitudes and responses toward hypothetical socially withdrawn peers. *Social Development*, *16*(3), 390-409.

- Coplan, R. J., Prakash, K., O'Neil, K., & Armer, M. (2004). Do you "want" to play? Distinguishing between conflicted shyness and social disinterest in early childhood. *Developmental Psychology, 40*(2), 244-258.
- Coplan, R. J., & Rubin, K. H. (1998). Exploring and assessing nonsocial play in the preschool: The development and validation of the preschool play behavior scale. *Social Development, 7*, 72-91.
- Coplan, R. J., Rubin, K. H., Fox, N. A., Calkins, S. D., & Stewart, S. L. (1994). Being alone, playing alone, and acting alone: Distinguishing among reticence and passive and active solitude in young children. *Child Development, 65*, 129-137.
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin, 115*, 74-101.
- Crick, N. R., & Dodge, K. A. (1996). Social information-processing mechanisms in reactive and proactive aggression. *Child Development, 67*, 993-1002.
- Crozier, W. R., & Hostettler, K. (2003). The influence of shyness on children's test performance. *British Journal of Educational Psychology, 73*, 317-328.
- Denham, S. A., Blair, K. A., DeMulder, E., Levitas, J., Sawyer, K., Auerbach-Major, S., & Queenan, P. (2003). Preschool emotional competence: Pathway to social competence. *Child Development, 74*, 238-256.
- Denham, S.A., Blair, K., Schmidt, M., & DeMulder, E. (2002). Compromised emotional competence: Seeds of violence sown early? *American Journal of Orthopsychiatry, 72*(1), 70-82.
- Denham, S. A., & Couchourd, E. A. (1990). Young preschoolers' understanding of emotions. *Child Study Journal, 20*(3), 171-193.
- Denham, S. A., & Holt, R. W. (1993). Preschoolers' likeability as cause or consequence of their social behavior. *Developmental Psychology, 29*(2), 271-275.
- Dennissen, J. J. A., Asendorpf, J. B., & van Aken, M. A. G. (2008). Childhood personality predicts long-term trajectories of shyness and aggressiveness in the context of demographic transitions in emerging adulthood. *Journal of Personality, 76*, 67-99.
- Diener, M. L., & Kim, D. (2004). Maternal and child predictors of preschool children's social competence. *Applied Developmental Psychology, 25*, 3-24.
- Dodge, K. A. (1980). Social cognition and children's aggressive behavior. *Child Development, 51*, 162-170.

- Dodge, K. A. (1985). Facets of social interaction and the assessment of social competence in children. In B. Schneider, K. H. Rubin, & J. Ledingham (Eds.), *Children's peer relations: Issues in assessment and intervention* (pp.3-22). New York: Springer-Verlag.
- Dodge, K. A., & Frame, C. L. (1982). Social cognitive biases and deficits in aggressive boys. *Child Development, 53*, 620-635.
- Dodge, K. A., Pettit, G. S., McClaskey, C. L., Brown, M. M., Gottman, J. M. (1986). Social competence in children. *Monographs of the society for research in child development, 51*(2), 1-85.
- Dodge, K. A., & Price, J. M. (1994). On the relation between social information processing and socially competent behavior in early school-aged children. *Child Development, 65*, 1385-1397.
- Dunsmore, J. C., Noguchi, R. J. P., Garner, P. W., Casey, E. C., & Bhullar, N. (2008). Gender-specific linkages of affective social competence with peer relations in preschool children. *Early Education and Development, 19*(2), 211-237.
- Eisenberg, N., & Harris, J. D. (1984). Social competence: A developmental perspective. *School Psychology Review, 13*(3), 267-277.
- Eisenberg, N., Sadovsky, A., & Spinrad, T. L. (2005). Associations of emotion-related regulation with language skills, emotion knowledge, and academic outcomes. *New Directions for Child and Adolescent Development, 109*, 109-118.
- Eisenberg, N., Shepard, S. A., Fabes, R. A., Murphy, B. C., & Guthrie, I. K. (1998). Shyness and children's emotionality, regulation, and coping: Contemporaneous, longitudinal, and across-context relations. *Child Development, 69*(3), 767-790.
- Eley, T. C., Bolton, D., O'Connor, T. G., Perrin, S., Smith, P., & Plomin R. (2003). A twin study of anxiety-related behaviours in pre-school children. *Journal of Child Psychology and Psychiatry, 44*(7), 945-960.
- Erdley, C. A., & Asher, S. R. (1994). *Social-cognitive processes of behaviorally Withdrawn children* (ERIC Document Reproduction Service No. ED370989)
- Erdley, C. A., & Asher, S. R. (1996). Children's social goals and self-efficacy perceptions as influences on their responses to ambiguous provocation. *Child Development, 67*, 1329-1344.
- Erdley, C. A., & Asher, S. R. (1999). A social goals perspective on children's social competence. *Journal of Emotional and Behavioral Disorders, 7*(3), 156-167.
- Finch, M., & Hops, H. (1983). Remediation of social withdrawal in young children: Considerations for the practitioner. *Child and Youth Services, 5*(3-4), 29-42.

- Findlay, L. C., Girardi, A., & Coplan, R. J. (2006). Links between empathy, social behavior, and social understanding in early childhood. *Early Childhood Research Quarterly, 21*, 347-359.
- Fine, S. E., Izard, C. E., Mostow, A. J., Trentacosta, C. J., & Ackerman, B. P. (2003). First grade emotion knowledge as a predictor of fifth grade self-reported internalizing behaviors in children from economically disadvantaged families. *Development and Psychopathology, 15*, 331-342.
- Ford, D., & Ford, M. (1987). Humans as self-constructing living systems: An overview. In M. Ford & D. Ford (Eds.), *Humans as self-constructing living systems: Putting the framework to work* (pp. 1-46). Hillsdale, N.J.: Erlbaum.
- Frey, K. S., Nolen, S. B., Edstrom, L. V., Hirschstein, M. K. (2005). Effects of a school-based social-emotional competence program: Linking children's goals, attributions, and behavior. *Applied Developmental Psychology, 26*, 171-200.
- Garner, P. W., Jones, D. C., & Miner, J. L. (1994). Social competence among low-income preschoolers: Emotion socialization practices and social cognitive correlates. *Child Development, 65*, 622-637.
- Goldfried, M. R., & d'Zurilla, T. J. (1969). A behavioral-analytic model for assessing competence. In C. Spielberger (Ed.), *Current topics in clinical and community psychology, Vol. 1* (pp. 151-196). New York: Academic.
- Goossens, F. A., Bokhorst, K., Bruinsma, C., & van Boxtel, H. W. (2002). Judgments of aggressive, withdrawn, and prosocial behavior: Perceived control, anger, pity and sympathy in young Dutch children. *Journal of School Psychology, 40*(4), 309-327.
- Gottman, J. M. (1977). Toward a definition of social isolation in children. *Child Development, 48*, 513-517.
- Graham, S., & Hoehn, S. (1995). Children's understanding of aggression and withdrawal as social stigmas: An attributional analysis. *Child Development, 66*, 1143-1161.
- Gresham, F. M. (1986). Conceptual and definitional issues in the assessment of children's social skills: Implications for classification and training. *Journal of Clinical Child Psychology, 15*, 3-15.
- Gresham, F. M. & Elliott, S.N. (1990). *Social Skills Rating System Manual*. Circle Pines: American Guidance Service.
- Grossberg, I. N., & Cornell, D. G. (1988). Relationship between personality adjustment and high intelligence: Terman versus Hollingworth. *Exceptional Children, 55*, 266-272.

- Grossman, D. C., Neckerman, H. J., Koepsell, T. D., Liu, P.Y., Asher, K. N., Beland, K., Frey, K. S., and Rivara, F. P. (1997). Effectiveness of a violence prevention curriculum among children in elementary school: A randomized controlled trial. *Journal of the American Medical Association*, *277*, 1605-1611.
- Gumple, T. P., & Golan, H. (2000). Teaching game-playing social skills using a self-monitoring treatment package. *Psychology in the Schools*, *37*(3), 253-261.
- Harman, J. (2009). *A comparison of relational and physical aggression correlates in young children*. Unpublished doctoral dissertation, University of Florida, Gainesville.
- Harrist, A.W., Zeia, A. F., Bates, J. E., Dodge, K. A., & Pettit, G. S. (1997). Subtypes of social withdrawal in early childhood: Sociometric status and social-cognitive differences across four years. *Child Development*, *68*(2), 228-294.
- Harter, S., & Pike, R. (1984). The pictorial scale of perceived competence and social acceptance for young children. *Child Development*, *55*, 1969-1982.
- Henderson, H. A., Marshall, P. J., Fox, N. A., & Rubin, K. H. (2004). Psychophysiological and behavioral evidence for varying forms and functions of nonsocial behavior in preschoolers. *Child Development*, *75*, 251-263.
- Honig, A. S. (1987). The shy child. *Young Children*, *42*(4), 54-64.
- Howes, C. (1987). Social competence with peers in young children: Developmental sequences. *Developmental Review*, *7*, 252-272.
- Huesmann, L. R. (1988). An information processing model for the development of aggression. *Aggressive Behavior*, *14*, 13-24.
- Hughes, J. (1990). Assessment of social skills: Sociometric and behavioral approaches. In C. Reynolds & R. Kamphaus (Eds.), *Handbook of psychological and educational assessment of children* (pp. 423-444). New York: Guilford.
- Hymel, S., Bowker, A., & Woody, E. (1993). Aggressive versus withdrawn unpopular children: Variations in peer and self-perceptions in multiple domains. *Child Development*, *64*, 879-896.
- Hymel, S., Rubin, K. H., Rowden, L., & LeMare, L. (1990). Children's peer relationships: Longitudinal prediction of internalizing and externalizing problems from middle to late childhood. *Child Development*, *61*, 2004-2021.
- Izard, C. E. (2001). Emotional intelligence or adaptive emotions. *Emotion*, *1*(3), 249-257.
- Izard, C., Fine, S., Schultz, D., Mostow, A., Ackerman, B., & Youngstrom, E. (2001). Emotion

- knowledge as a predictor of social behavior and academic competence in children at risk. *Psychological Science*, 12(1), 18-23.
- Kagan, J. (1989). Temperamental contributions to social behavior. *American Psychologist*, 44(4), 668-674.
- Kagan, J., Reznick, J. S., & Snidman, N. (1987). The physiology and psychology of behavioral inhibition in children. *Child Development*, 58, 1459-1473.
- Kazura, K. & Flanders, R. (2007). Preschool children's social understanding: A pilot study of goals and strategies during conflict situations. *Psychological Reports*, 101, 547-554.
- Kemple, K. M. (1995). Shyness and self-esteem in early childhood. *Journal of Humanistic Education & Development*, 33(4), 173-183.
- Kemple, K. M., David, G. M., & Wang, Y. (1996). Preschoolers' creativity, shyness, and self-esteem. *Creativity Research Journal*, 9(4), 317-326.
- Kim, Y. A. (2003). Necessary social skills related to peer acceptance. *Childhood Education*, 79(4), 234-236.
- Klima, T., & Repetti, R. L. (2008). Children's peer relations and their psychological adjustment: Differences between close friendships and the larger peer group. *Merrill-Palmer Quarterly*, 54(2), 151-178.
- Kluger, J., Marquez, S., Murphy, M., Song, S., & Waxer, C. (2005). Secrets of the shy. *Time*, 165(14), 1-3.
- Ladd, G. W., & Crick, N. R. (1989). Probing the psychological environment: Children's cognitions, perceptions, and feelings in the peer culture. In M. L. Maehr & C. Ames (Eds.), *Advances in motivation and achievement: Motivation enhancing environments* (pp. 1-44). Greenwich, CT: JAI Press.
- Larzelere, R. E., Martin, J. A., & Amberson, T. G. (1989). The toddler behavior checklist: A parent-completed assessment of social-emotional characteristics of young preschoolers. *Family Relations*, 38(4), 418-425.
- Leary, M. R. (2001). Shyness and the self: Attentional, motivational, and cognitive self-processes in social anxiety and inhibition. In R. W. Crozier & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness* (pp. 217-234). New York, NY: John Wiley & Sons Ltd.
- Lindsey, E.W. (2002). Preschool children's friendships and peer acceptance: Links to social competence. *Child Study Journal*, 32(3), 145-156.
- MacDonald, P. M., Kirkpatrick, S. W. (1996). Schematic drawings of facial expressions for

- emotion recognition and interpretation by preschool-aged children. *Genetic, Social, and General Psychology Monographs*, 122(4), 373-388.
- Mastropieri, M. A., & Scruggs, T. E. (2001). Early intervention for socially withdrawn children. *The Journal of Special Education*, 19(4), 430-441.
- Mayeux, L., & Cillessen, A. H. N. (2003). Development of social problem solving in early childhood: Stability, change, and associations with social competence. *The Journal of Genetic Psychology*, 164(2), 153-173.
- McMahon, S. D., Washburn, J., Felix, E. D., Yakin, J., and Childrey, G. (2000). Violence prevention: Program effects on urban preschool and kindergarten children. *Applied and preventive psychology*, 9, 271-281.
- McWayne, C. M., Fantuzzo, J. W., & McDermott, P. A. (2004). Preschool competency in context: An investigation of the unique contribution of child competencies to early academic success. *Developmental Psychology*, 40(4), 633-645.
- Merrell, K. W. (1996). Social-emotional assessment in early childhood: The preschool and kindergarten behavior scales. *Journal of early intervention*, 20(2), 132-145.
- Mills, R. S., & Rubin, K. H. (1990). Parental beliefs about problematic social behaviors in early childhood. *Child Development*, 61, 138-151.
- Misailidi, P. (2006). Young children's display rule knowledge: Understanding the distinction between apparent and real emotions and the motives underlying the use of display rules. *Social Behavior and Personality*, 34(10), 1285-1296.
- Mize, J., & Ladd G. W. (1988). Predicting preschoolers' peer behavior and status from their interpersonal strategies: A comparison of verbal and enactive responses to hypothetical social dilemmas. *Developmental Psychology*, 24(6), 782-788.
- Moehler, E., Kagan, J., Oelkers-Ax, R., Brunner, R., Poustka, L., Haffner, J., & Resch, F. (2008). Infant predictors of behavioural inhibition. *British Journal of Developmental Psychology*, 26, 145-150.
- Nelson, L. J., Rubin, K. H., & Fox, N. A. (2005). Social withdrawal, observed peer acceptance, and the development of self-perceptions in children ages 4 to 7 years. *Early Childhood Research Quarterly*, 20, 185-200.
- Peery, J. C. (1979). Popular, amiable, isolated, rejected: A reconceptualization of sociometric status in preschool children. *Child Development*, 50, 1231-1234.
- Perry, D. G., Perry, L. C., & Rasmussen, P. (1986). Cognitive social learning mediators of aggression. *Child Development*, 57, 700-711.

- Pettit, G. S., Dodge, K. A., & Brown, M. M. (1988). Early family experience, social problem solving patterns, and children's social competence. *Child Development, 59*, 107-120.
- Pfeifer, M., Goldsmith, H. H., Davidson, R. J., & Rickman, M. (2002). Continuity and change in inhibited and uninhibited children. *Child Development, 73*(5), 1474-1485.
- Piaget, J. (1964). Part I: Cognitive development in children: Piaget: Development and learning. *Journal of Research in Science Teaching, 2*(3), 176-186.
- Pons, F., Lawson, J., Harris, P. L., Rosnay, M. (2003). Individual differences in children's emotion understanding: Effects of age and language. *Scandinavian Journal of Psychology, 44*, 347-353.
- Porath, M. (2003). Social understanding in the first years of school. *Early Childhood Research Quarterly, 18*, 468-484.
- Putallaz, M., & Gottman, J. M. (1981). An interactional model of children's entry into peer groups. *Child Development, 52*, 986-994.
- Putallaz, M. & Sheppard, B. (1992). Conflict management and social competence. In C. Shantz & W. W. Hartup (Eds.), *Conflict in child and adolescent development* (pp. 330-355). New York: Cambridge University Press.
- Rapport, M. D., Denney, C. B., Chung, K., & Hustace, K. (2001). Internalizing behavior problems and scholastic achievement in children: Cognitive and behavioral pathways as mediators of outcome. *Journal of Clinical Child Psychology, 30*(4), 536-551.
- Richard, B. A., & Dodge, K. A. (1982). Social maladjustment and problem solving in school-aged children. *Journal of Consulting and Clinical Psychology, 50*(2), 226-233.
- Ridgeway, D., Waters, E., & Kuczaj, S. A. (1985). Acquisition of emotion-descriptive language: Receptive and productive vocabulary norms for ages 18 months to 6 years. *Developmental Psychology, 21*(5), 901-908.
- Rose-Krasnor, L. (1997). The nature of social competence: A theoretical review. *Social Development, 6*, 111-135.
- Rowe, D. C. (1990). As the twig is bent? The myth of child-rearing influences on personality development. *Journal of Counseling & Development, 68*, 606-611.
- Rubin, K. H. (1982). Nonsocial play in preschoolers: Necessarily evil? *Child Development, 53*, 651-657.
- Rubin, K. H., & Asendorpf, J. B. (Eds.). (1993). *Social withdrawal, inhibition, and shyness in childhood*. Hillsdale: Lawrence Erlbaum Associates.

- Rubin, K. H., Chen, X., McDougall, P., Bowker, A., & McKinnon, J. (1995). The Waterloo longitudinal project: Predicting internalizing and externalizing problems in adolescence. *Development and Psychopathology, 7*, 751-764.
- Rubin, K. H., & Coplan, R. J. (2004). Paying attention to and not neglecting social withdrawal and social isolation. *Merrill-Palmer Quarterly, 50*(4), 506-534.
- Rubin, K. H., Daniels-Beirness, T., & Bream, L. (1984). Social isolation and social problem solving: A longitudinal study. *Journal of Consulting and Clinical Psychology, 52*, 17-25.
- Rubin, K. H., Hymel S., & Mills R. S. (1989). Sociability and social withdrawal in childhood: Stability and outcomes. *Journal of Personality, 57*(2), 237-255.
- Rubin, K. H., & Krasnor, L. R. (1986). Social-cognitive and social behavioral perspectives on problem solving. In M. Perlmutter (Ed.), *The Minnesota Symposium on Child Psychology* (Vol. 18, pp. 1-68). Hillsdale, NJ: Erlbaum.
- Rubin, K. H., Nelson, L. J., Hastings, P., & Asendorpf, J. (1999). The transaction between parents' perceptions of their children's shyness and their parenting styles. *International Journal of Behavioral Development, 23*(4), 937-957.
- Rubin, K. H., & Mills, R. S. L. (1988). The many faces of social isolation in childhood. *Journal of consulting and clinical psychology, 56*(6), 916-924.
- Sanson, A., Pedlow, R., Cann, W., Prior, M., Oberklaid (1996). Shyness ratings: Stability and correlates in early childhood. *International Journal of Behavioral Development, 19*(4), 705-724.
- Schneider, B. H., Attili, G., Vermigli, P., & Younger, A. (1997). A comparison of middle class English-Canadian and Italian mothers' beliefs about children's peer-directed aggression and social withdrawal. *International Journal of Behavioral Development, 21*, 133-154.
- Schultz, D., Izard, C. E., Ackerman, B. P., & Youngstrom, E. A. (2001). Emotion knowledge in economically disadvantaged children: Self-regulatory antecedents and relations to social difficulties and withdrawal. *Development and Psychopathology, 13*, 53-67.
- Spivack, G., & Shure, M. B. (1974). *Social adjustment of young children: A cognitive approach to solving real-life problems*. Oxford, England: Jossey-Bass.
- Stifter, C. A., & Fox, N. A. (1986). Preschool children's ability to identify and label emotions. *Journal of Nonverbal Behavior, 10*(4), 255-266.
- Swallow, W. K. (2000). *The shy child: Helping children triumph over shyness*. New York: Warner Books.

- Tabachnick, B. G., and Fidell, L. S. (1996). *Using Multivariate Statistics*. New York, NY: Harper Collins.
- Thijs, J. T., Koomen, H. M. Y., de Jong, P. F., van der Leij, A., & van Leeuwen, M. G. P. (2004). Internalizing behaviors among kindergarten children: Measuring dimensions of social withdrawal with a checklist. *Journal of Clinical Child and Adolescent Psychology*, 33(4), 802-812.
- Webster-Stratton, C., Lindsay, D. W. (1999). Social competence and conduct problems in young children: Issues in assessment. *Journal of Clinical Child Psychology*, 28, 25-43.
- Wichmann, C., Coplan, R. J., & Daniels, T. (2004). The social cognitions of socially withdrawn children. *Social Development*, 13(3), 377-392.
- Williams, S. C., Lochman, J. E., Phillips, N. C., & Barry, T. D. (2003). Aggressive and nonaggressive boys' physiological and cognitive processes in response to peer provocations. *Journal of Clinical Child and Adolescent Psychology*, 32(4), 568-576.
- Wojtalewicz, M. P. (2004). *Examination of head start children's social competence and social cognitions after participating in a universal violence prevention program*. Unpublished doctoral dissertation, University of Florida, Gainesville.
- Younger, A. J., & Boyko, K. A. (1987). Aggression and withdrawal as social schemas underlying children's peer perceptions. *Child Development*, 58, 1094-1100.
- Younger, A. J., & Daniels, T. M. (1992). Children's reasons for nominating their peers as withdrawn: Passive withdrawal versus active isolation. *Developmental Psychology*, 28(5), 955-960.
- Younger, A. J., Schneider, B. H., Wadeson, R., Guirguis, M., & Bergeron, N. (2000). A behaviour-based peer-nomination measure of social withdrawal in children. *Social Development*, 9(4), 544-564.
- Zimbardo, P. (1977). *Shyness: What it is and what to do about it*. Reading, MA: Addison-Wesley.

BIOGRAPHICAL SKETCH

Katrina Raia was born in Danbury, CT and raised in Winter Springs, FL. She obtained her undergraduate education at the University of Central Florida, where she majored in psychology and minored in criminal justice. Upon receiving her Bachelor of Science in psychology, Katrina decided she would like to pursue a doctoral degree in school psychology. She was admitted as a doctoral student in the School Psychology Program at the University of Florida in 2002. During her doctoral studies Katrina was awarded an Alumni Fellowship. Katrina earned her Masters of Education from the University of Florida in August of 2005. She completed an APA accredited clinical internship at Riverbend Community Mental Health Center during the 2008/2009 academic school year. Katrina has received her national certification in School Psychology and has earned a certification as an Infant Toddler Developmental Specialist. Upon graduation, Katrina plans to pursue a post-doctoral placement and work towards licensure in psychology.