

Parents' Influence on Child Social Self-Efficacy and Social Cognition

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PARENTS' INFLUENCE ON CHILD SOCIAL SELF-EFFICACY AND SOCIAL
COGNITION

by

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ABSTRACT
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Marquette University, 2011

Self-representations, such as self-efficacy, are salient factors in child development. Self-efficacy refers to the child's estimation of his/her ability to successfully complete a given task. Self-efficacy develops as children attempt various tasks and receive feedback about their performance. Social self-efficacy, one dimension of self-efficacy, refers to a child's estimation of his/her ability to form and maintain interpersonal relationships. Previous research has demonstrated a relationship between child self-efficacy and parent-child interaction variables. Social cognition refers to the manner in which children interpret and analyze social behavior. Social cognition develops through children's interactions with important others and may be related to social self-efficacy in that it allows children to create expectations about the reactions of others and the outcomes of their own behavior. The present study will examine the development of social self-efficacy and social cognition in the context of the parent-child relationship.

Children ages 8 to 10 and their parents participated in the present study. Parents and children completed self-report measures assessing social self-efficacy, parenting style, and self-esteem. Parent and child social cognition was measured using the Social Cognition and Object Relations Scale-Revised (SCORS-R), which is a structured method of coding responses to the Thematic Apperception Test (TAT). Ratings were made for four social cognitive scales: Complexity of Representations of People, Affective Quality of Relationships, Capacity for Emotional Investment in Relationships, and Understanding of Social Causality.

There was a moderate, positive correlation between parent social self-efficacy and child social self-efficacy. These effects were maintained while controlling for the influence of parent global self-esteem. Additionally, there was a strong, positive correlation between parent and child scores for Affective Quality of Relationships. A hierarchical multiple regression model containing child gender, age, and sociocognitive scores, and parent social self-efficacy scores predicted a significant amount of the variance in child social self-efficacy scores.

The current study demonstrates a statistically significant relationship between parent social self-efficacy and child social self-efficacy. Significant differences between parent and child sociocognitive scores suggest a developmental trajectory of sociocognitive skills. The results of the present study may contribute to a better understanding parental influence on child social self-efficacy and social cognition.

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INTRODUCTION

Self-representations, such as self-efficacy, are a salient factor in child development. Self-efficacy refers to a child's estimation of his/her ability to successfully perform a domain-specific task (Bandura, 1977, 1997). Self-efficacy develops experientially and is influenced by feedback from important others (Bandura, 1997). Social self-efficacy is a dimension of self-efficacy that refers to a child's estimation of his/her ability to form and maintain interpersonal relationships (Hagedoorn & Molleman, 2006). Social cognition is an additional interpersonal interaction variable, which refers to the manner in which children analyze and interpret social behavior (Forrester, 1992). Similar to self-efficacy, social cognition develops experientially through interactions with important others in early childhood (Forrester, 1992). Both social self-efficacy and social cognition are considered to be important components of social interactions and are related to numerous interpersonal outcomes for children (Caprara et al., 1998; Caprara, Barbaranelli, Pastorelli, & Cervone, 2004; Caprara, Regalia, & Bandura, 2002; Caprara & Steca, 2007; Downey & Walker, 1989; Hala, 1997; Underwood & Moore, 1982). Previous research examining social self-efficacy has focused on the outcomes in adolescent populations, yet little is known about the development of social self-efficacy in younger child populations. Thus, the purpose of the present study is to examine the development of social self-efficacy in middle childhood in the context of the parent-child relationship. Additionally, the current study will explore the relationship between child social self-efficacy and social cognition. Finally, the current study will examine the relationship between parent social cognition and child social cognition to explore patterns and associated factors.

The Development of the Self

Developmental theorists postulate that the self is a product of cognitive construction

(Harter, 1999). Cognitive representations of the self begin to develop at around 2 years of age and are based on child observations, expectations, and social comparisons (Harter, 1999). Self-representations develop from basic, concrete descriptions in early childhood to complex, relational descriptions in late childhood (Harter, 1999; Damon & Hart, 1988; Rosenberg, 1979). The following review will focus on self-representations in middle childhood as this population is the focus of the current study. Self-representations in middle childhood are based on the child's perceived competencies and become increasingly interpersonal in nature (Harter, 1999). Self-representations in middle childhood become more negative in comparison to self-representations of young children (Harter, 1999). Harter (1999) theorized that three emerging cognitive skills are related to the increase in negative self-representations: 1) the ability to use social comparison to modify and construct self-representations, 2) the ability to differentiate between the real and the ideal self, and 3) greater development of perspective-taking skills. Specifically, children demonstrate greater reliance on social comparisons with peers to evaluate themselves (Harter, 1999). If children find themselves less competent than others, particularly in domains that are important to the child, global self-representations may be negatively affected (Maccoby, 1980; Moretti & Higgins, 1990; Ruble & Frey, 1991). Similarly, if children find themselves deficient according to their own expectations, self-esteem may decrease (Harter, 1999). Greater development of perspective-taking skills increases the child's awareness of parent, teacher, and peer expectations for his/her competence, making it easier to find deficiencies in one's own competence (Harter, 1999). Interactions with socializing agents, particularly parents and peers, influence the development of the self (Harter, 1999). Interactions characterized by support, approval, and acceptance lead to internalizations of the self as acceptable, competent, and lovable (Harter, 1999). Positive interactions may take the form of reflected appraisals, encouragement, and support of mastery efforts (Harter, 1999). Thus, self-representations in middle childhood are increasingly interpersonally-focused and are greatly influenced by feedback from important others.

The development of self-representations includes the development of self-efficacy, which was previously defined as a self-evaluative construct related to a particular domain (Bandura, 1977, 1997). A key component of self-efficacy is social self-efficacy, which was previously defined as a dimension of self-efficacy related to the formation of interpersonal relationships (Hagedoorn & Molleman, 2006). Self-efficacy develops similarly to other self-representations (i.e. through social comparisons and interactions with significant others) and is a particularly salient dimension of the self, especially in later childhood and adolescence (Bandura, 1997). Research examining self-efficacy has not focused specifically on the factors influencing the development of social self-efficacy and the outcomes related to the construct. The current study proposes to expand upon previous research by examining the impact of parent characteristics on the development of child self-efficacy and, more specifically, social self-efficacy. In addition to expansion upon previous research, the current study proposes to examine social cognition in parents and their children, an additional factor hypothesized to be related to self-efficacy. Previous research on the development of self-efficacy has focused on adolescents and their parents; therefore, the following review of the literature will focus on this population.

Self-Efficacy

Self-efficacy, as described earlier, is a component of Bandura's social-cognitive theory (Bandura, 1977, 1997). Self-efficacy, as compared to other self-evaluative constructs, is a context- or domain-specific cognitive appraisal of capability, rather than an affective global judgment of self-worth (Pintrich & Schunk, 2002; Zimmerman & Cleary, 2006). According to Bandura's (1997) theory, self-efficacy is influenced by four factors: personal mastery experiences, vicarious experiences, verbal persuasion, and physiological reactions. Personal mastery experiences refer to an individual's previous successes or accomplishments with a given task and are considered to have the strongest and most consistent influence on self-efficacy (Schunk & Meece, 2006). Vicarious experiences, a form of social comparison, occur when other

individuals model or perform a specific behavior. Previous research indicates that modeling has the strongest impact on self-efficacy when the model is similar to the individual and demonstrates coping or adaptation when confronted with errors during task performance (Schunk, Hanson, & Cox, 1987; Schunk & Meece, 2006). Verbal persuasion in the form of encouraging feedback from important others, such as parents, teachers, and peers, has been found to positively impact self-efficacy if subsequent performance of the task is successful (Schunk & Meece, 2006). Finally, physiological indicators of anxiety, such as increased heart rate, may detract from self-efficacy by signaling to the individual that he/she lacks the capability to perform a task successfully (Schunk & Meece, 2006).

The broad construct of self-efficacy is divided into a number of different dimensions. The primary focus of the current study is the dimension of social self-efficacy. While the development of the broad construct of self-efficacy has been examined extensively, information on the development of the specific dimension of social self-efficacy is limited. Similarly, research examining outcomes of social self-efficacy has been conducted, yet there is minimal research examining influences on the development of social self-efficacy. However, previous research examining similar constructs, such as social competence and social problem-solving, has been conducted. Social competence refers to the generalization of social skills and knowledge in social interactions, and social problem-solving refers to the negotiation of peer relationships issues (McDowell & Parke, 2009). These constructs refer to knowledge and ability in social interactions, and thus, differ from social self-efficacy, which refers to self-evaluative beliefs. Previous research has found that parenting behaviors are among the multiple influences impacting the development of children's social competence (McDowell & Parke, 2009). In a study by McDowell and Parke (2009), parent instruction directed toward social problem-solving was related to positive peer outcomes, particularly among younger children (McDowell & Parke, 2009). Additionally, the literature suggests that parent provision of social opportunities may influence child social competence. Specifically, children who participate in formal

extracurricular activities have better perspective-taking skills (McDowell & Parke, 2009). As noted earlier, perspective-taking skills are hypothesized to be related to self-representations (Harter, 1999). Parent instruction and provision of social opportunities may be likened to the vicarious experience and verbal persuasion elements related to the development of self-efficacy. In the same manner in which self-efficacy and social competence develop through vicarious experiences and verbal persuasion, so may social self-efficacy develop through parent modeling of social behaviors (in the form of direct instruction) and parent encouragement of social interaction and involvement. The current study will examine the associations between parent modeling of social behaviors and the development of children's social self-efficacy.

Outcomes of Self-Efficacy in Adolescents

The self-efficacy literature indicates that self-efficacy is a dynamic construct that changes across the course of development (Baldwin & Hoffman, 2002; Davis-Kean et al., 2008). Self-efficacy is a particularly salient factor in adolescence as a result of the challenges and new experiences created by cognitive, physical, and social changes during this period (Schunk & Meece, 2006). Factors influencing self-efficacy may be related to age, gender, and culture. Previous research on developmental changes in self-efficacy has demonstrated that self-efficacy declines as children transition to junior high school (Wigfield et al., 1997; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991). Wigfield et al. (1997) found that the decline in children's academic, social, and athletic self-efficacy began in the 7th grade and rebounded about one year later. Research conducted by Davis-Kean et al. (2008) demonstrated that self-efficacy beliefs become stronger predictors of behavior as children age, specifically in regards to academic achievement and social relationships.

Previous research examining gender differences in self-efficacy has yielded mixed results (Felson & Zielinski, 1989; Nielsen & Metha, 1994; Schunk & Lilly, 1984; Schunk & Meece,

2006). Research conducted by Christie and Segrin (1998) indicated that self-efficacy is influenced by perceived constraints faced in the successful completion of a task. Gender has been identified as one of the perceived constraints that may influence self-efficacy. Additionally, research conducted by Hackett & Betz (1981) hypothesized that sex-role stereotypes were influential in the development of self-efficacy. Specifically, sex-role stereotypes encourage boys to be assertive, effective, and task-oriented, while girls are encouraged to be sensitive and emotionally expressive. Further, researchers have hypothesized that the factors contributing to self-efficacy development have gender-specific influences (Christie & Segrin, 1998). For example, females may be exposed to fewer vicarious learning experiences of involving nontraditional roles and tasks. Specifically, females are provided with fewer role models, in the media and in their personal lives, engaging in nontraditional occupational and education tasks. Additionally, females may receive more verbal discouragement when engaging in male-stereotyped activities, such as careers in mathematics and science, which may contribute to lower self-efficacy for those tasks (Christie & Segrin, 1998).

Previous research has examined the role of traditional masculine and feminine traits in the perception of self-efficacy (Christie & Segrin, 1998). Traditional masculine traits were identified as independence and competitiveness, whereas traditional feminine traits were identified as kindness and helpfulness. Researchers found that the presence of traditional masculine traits, regardless of participant biological sex, were predictive of perceived self-efficacy in both social and non-social tasks (Christie & Segrin, 1998). Participant biological sex was not related to perceived self-efficacy in either task (Christie & Segrin, 1998). Additionally, researchers have postulated that gender differences in self-efficacy may be culturally-based. Specifically, a study conducted by Meece and Scantlebury (in press), as cited by Schunk & Meece (2006), found that self-efficacy may be related to the manner in which women are portrayed as less capable than men in specific cultures. Thus, it appears that gender influences societal perceptions of an individual's capabilities, which may influence vicarious experiences and verbal feedback.

Additionally, it appears that traditional gender traits influence individual perceptions of self-efficacy, but the biological sex is not related to these perceptions. Further research is necessary to develop a more comprehensive understanding of the relationship between gender and self-efficacy.

Previous research has established relationships between self-efficacy and children's cognitive, affective, and behavioral experiences. The following review will introduce specific findings related to self-efficacy and child outcomes.

The Impact of Self-Efficacy on Cognition and Behavior

Previous research on adolescent self-efficacy demonstrates that self-efficacy impacts cognitive, affective, and behavioral domains of adolescent functioning (Zimmerman & Cleary, 2006). Cognition refers to mental processes and their role in thinking, feeling, and behaving (Kellogg, 2003). Self-efficacy is cognitively constructed and influences thoughts, expectations, and behaviors. Bandura (1997) and Schunk (1995) hypothesized that self-efficacy affects individuals' task choices, effort, and persistence in tasks. Previous research has demonstrated a relationship between self-efficacy, outcome expectations, and task pursuit (Schunk & Meece, 2006). Findings indicate that individuals' expectations about the outcome of specific behaviors will lead them to pursue tasks with perceived positive outcomes and to avoid tasks with perceived negative outcomes. A study by Rodebaugh (2006) found that adult self-efficacy ratings for public speaking were predictive of attempted and avoided social performance tasks, particularly when the individuals were familiar with the task. The same study found that self-efficacy ratings were predictive of individuals' persistence in a social performance task. Previous research has demonstrated a relationship between academic self-efficacy, motivation, and goal-setting, which may impact academic achievement and future career plans (Caprara et al., 2004; Bandura, 2006; Davis-Kean et al., 2008). Several studies have more closely examined the relationship between academic self-efficacy and academic achievement and have demonstrated that high academic

self-efficacy was predictive of higher academic achievement for male and female adolescents (Caprara et al., 2004; Davis-Kean et al., 2008). A similar relationship between self-efficacy and individual career aspirations has been demonstrated (Bandura, 1997; Betz & Hackett, 1986; Hackett, 1995; Lent, Brown, & Hackett, 1994).

The Impact of Self-Efficacy on Child Psychopathology

Estimates of the prevalence of adolescent depression indicate that between 8% and 18% of adolescents display depressive symptomatology, and about 16% are diagnosed with a depressive disorder (Jenkins, Goodness, & Burhmester, 2002). Few etiological models relevant to social self-efficacy have been developed to explain the onset and progression of adolescent depression. One explanation is offered by a study conducted by Jenkins et al. (2002), which found a relationship between particular aspects social self-efficacy (specifically intimate support and conflict management) and depressive symptoms. The intimate support aspect of social self-efficacy refers to the adolescent's estimation of his/her ability to obtain companionship, emotional support, and approval from friends; the conflict management aspect of social self-efficacy refers to the adolescent's estimation of his/her ability to maintain a healthy balance of conflict in interpersonal relationships (Jenkins et al., 2002). The study found that lower perceived social self-efficacy in intimate support and conflict management was related to depressive symptoms in both male and female adolescents.

One explanation for the relationship between low self-efficacy and depression is the effect of perceived control. Previous research has demonstrated that individuals with low self-efficacy typically have an external locus of control, and so they perceive events as personally uncontrollable (Zimmerman & Cleary, 2006). Silver, Mitchell, and Gist (1995) found that individuals with low self-efficacy tend to attribute task failures to uncontrollable factors, which may lead to feelings of depression and helplessness. Another explanation for the relationship between adolescent self-efficacy and depression is related to attributional style. Seligman et al.

(1984) demonstrated a relationship between adolescent social self-efficacy and attributional style. Specifically, adolescents who interpreted social information using an internal, global, and stable attributional style, as compared to an external, specific, and variable attributional style, were more likely to have higher depression scores and lower social self-efficacy.

The Impact of Self-Efficacy on Peer Relationships

Previous self-efficacy research has examined the relationship between self-efficacy and prosocial behavior, defined by Caprara & Steca (2007) as “individuals’ tendency to undertake voluntary actions aimed at benefitting others, such as sharing, donating, caring, comforting, and helping” (p. 218). Prosocial behavior contributes to the psychosocial adjustment of children and adolescents and can be an important variable in improving social interactions (Caprara & Steca, 2007). Prosocial behavior may be related to greater social approval and a decreased likelihood of developing depression (Caprara & Steca, 2007). Previous research has demonstrated that two specific types of self-efficacy, affective regulation and interpersonal relationship management, are positively related to prosocial behavior in males and females (Caprara & Steca, 2007). Not only does self-efficacy contribute to prosocial behavior, but it may enhance individuals’ ability to resist engaging in antisocial conduct, which may lead to poor peer relationships (Caprara et al., 1998; Caprara et al., 2002; Caprara et al., 2004). Higher self-efficacy for resisting peer pressure decreases the likelihood of involvement in delinquent activities and substance abuse (Caprara et al., 1998, 2002). The study by Caprara and Steca (2007) found that individuals with higher social self-efficacy demonstrated lower levels of problem behavior, particularly among females. The same study found that social self-efficacy was more predictive of these variables than were self-reported personality characteristics, as indicated by responses representing the five-factor model.

Given the importance of social self-efficacy beliefs and their potential impact on adolescent academic, social, and peer functioning, it is critical to investigate the factors contributing to the development of social self-efficacy and the variables that shape its changes across the lifespan.

Specifically, parent characteristics have been found to impact the development of social self-efficacy.

Parenting Factors and Adolescent Self-Efficacy

Child self-efficacy is influenced by different environments and significant relationships with others, including parents, teachers, and peers (Felson & Zielinski, 1989; Nielsen & Metha, 1994; Patrick, Hicks, & Ryan, 1997; Schunk & Meece, 2006). Previous research has demonstrated a relationship between family, particularly parenting factors, and child self-efficacy (Whitbeck, 1987; Schunk & Meece, 2006). According to Schunk and Meece (2006), the family environment created by parents may influence child self-efficacy in numerous ways. Parents shape the family environment by providing children with challenges and new experiences, positive role models, and realistic goals and expectations. Parent expectations and perceptions of children's abilities may influence and shape child self-efficacy (Schunk & Meece, 2006). Parents communicate their expectations for their children through verbal feedback and by the types of experiences they encourage or discourage their child to participate in (Eccles et al., 1998). Parent encouragement of child involvement in new and challenging experiences may strengthen child efficacy by providing the child with mastery experiences (Eccles et al., 1998). Previous findings indicating a relationship between parent verbal feedback and self-efficacy may apply specifically to social self-efficacy. It is hypothesized that parent verbal feedback and encouragement of social interactions and peer relationships may affect the development of social self-efficacy, but these relationships have not yet been examined empirically.

According to social learning theory, child self-efficacy can be influenced by modeling of behaviors and attitudes by significant persons in their lives, also referred to as vicarious experiences (Bandura, 1977). According to Whitbeck (1987), child self-efficacy may be positively related to parent self-efficacy due to the effects of modeling. Research also indicates

that children are more likely to imitate a model that they view as nurturing than they are to imitate a nonnurturing model (Whitbeck, 1987). Moreover, parent-child interaction variables, specifically support and autonomy-granting, were related to child self-efficacy in two ways (Whitbeck, 1987). First, parental support and autonomy-granting communicated a sense of worth and competence to the child, which served to enhance self-efficacy. Second, positive parent-child interaction variables enhanced the child's perception of parenting efficacy, thereby augmenting the effects of parent modeling.

Further information about parent-child interaction variables can be gained by examining parenting style characteristics. According to Baumrind's (1971) theory, parent style can be characterized by three variables: support, reciprocity, and control. Parental supportiveness is defined as parental behavior that "makes the child feel comfortable in the presence of the parent and confirms in the child's mind that he [sic] is basically approved of as a person" (Rollins & Thomas, 1979; pp. 320). Parental reciprocity is defined as a "dyadic synchrony in parent-child interactions" (Wahler & Bellamy, 1997; p. 550). Two types of parental control have been identified in the literature: inductive control and coercive control (Whitbeck, 1987). Inductive control refers to the parents attempt to gain "voluntary compliance to parental desires by avoiding direct conflict with the child" (Rollins & Thomas, 1979; p. 322). Use of inductive control allows the child to gain a sense of autonomy in decision-making and communicates a sense of parent competence in the child (Whitbeck, 1987). Coercive control refers to an attempt to gain child compliance through the use of external force, and is associated with negative self-esteem in children (Rollins and Thomas, 1979). Research examining parenting style has demonstrated that among the three parenting prototypes (i.e., authoritative, permissive, and authoritarian; Baumrind, 1971), authoritative parenting is most strongly related to positive developmental outcomes for children (Ang, 2006). According to previous research, authoritative parenting represents the best combination of supportiveness, reciprocity, and control in the parent-child relationship (Ang, 2006). A parent's sense of competence in his/her child may lead to the parent to provide greater

verbal encouragement, thus, enhancing child social self-efficacy. Previous research has demonstrated relationships between authoritative parenting and positive self-perceptions, greater self-reliance, and higher academic achievement in children (Ang, 2006). Additionally, higher parent support and lower parent coercive control were related to greater child social competence (McDowell & Parke, 2009). Authoritarian parenting and permissive parenting have been associated with negative self-perceptions, higher incidences of substance abuse, and school misconduct (Ang, 2006). In conclusion, parent-child interactions characterized by support and autonomy-granting provide children with the encouraging feedback necessary for the development of self-efficacy. Interactions lacking support and autonomy-granting may communicate to the child that he/she is not a competent, worthwhile individual.

When examining the relationship between parenting style and child outcomes, it is important to consider parent and child ethnicity. Previous research has demonstrated that parenting styles differ based on the practices that best correspond to the core beliefs of individual cultures (Ho, Bluestein, & Jenkins, 2008). For example, Asian cultures value respect for authority and obedience; thus, parenting styles of Asian American parents are typically characterized by high levels of control and demandingness (Ho et al., 2008). Previous research has demonstrated that both Asian American and African American parents are more likely to use an authoritarian parenting style, whereas Caucasian parents are more likely to use an authoritative parenting style, which is characterized by a balance between control and reciprocity (Ho et al., 2008). Latino parents are likely to use a parenting style that is characterized by high levels of control but also high levels of warmth and support (Dixon, Graber, & Brooks-Gunn, 2008). Previous findings suggest that Asian American and African American children exposed to authoritarian parenting have more positive outcomes than do Caucasian children exposed to authoritarian parenting (Dixon et al., 2008). Further, Asian American children are more likely to interpret high parental control and demandingness as an indication of love, involvement, and support (Ho et al., 2008). In conclusion, parents belonging to specific ethnic groups are more likely to use parenting

practices that match the values of their particular cultural group, and children belonging to specific ethnic groups tend to respond more positively to particular types of parenting styles. The current study will examine the relationship between participant ethnicity, parenting style, and social self-efficacy. Object relations, an additional component of the parent-child relationship, will also be examined in the current study.

Object Relations

Object relations theory, a component of psychoanalytic and psychodynamic theory, describes an interpersonal process through which individuals develop the capacity to relate to others, who are referred to as objects (Westen, 1991). It is during the development of object relationships that children learn to differentiate between the self and the object (Kernberg, 1976). Theoretically, in order to be considered an object, a particular person must have a significant psychological relationship with the individual. Object relations refers more specifically to attitudes and behaviors of an individual toward a particular object (Compton, 1995).

Object relations theory suggests that children begin to develop object relationships through interactions with primary caregivers in the first few weeks of life. These relationships are characterized by the child's feelings and desires to maintain security and well-being and are considered by theorists to be the first foundations in the development of a child's personality (Buckley, 1986). Aspects of the child-caregiver relationship, such as caregiver behaviors, are internalized by the child (Compton, 1995). Based on continued interactions with the primary caregiver, children's perceptions and memories lead to further development and organization of the representational world. Theorists suggest that children experience two types of interactions, pleasurable and unpleasant, and that children attempt to maintain relationships with pleasurable objects and to minimize interactions with unpleasant objects. Pleasurable object relationships allow the child to create a more cohesive representational world and lead to greater relational stability. This is also referred to as object constancy (Buckley, 1986). Children integrate

pleasurable and unpleasant object representations to achieve object constancy, which is considered to be achieved by age 3 (Kernberg, 1976). Children's representations are thought to become more complex with increased interactions with an object. According to theorists, early object relationships provide the child with information that contributes to psychological development, including the development of internal regulatory mechanisms and the development of the ego (Buckley, 1986). Object relations theorists suggest that children's fundamental object relations develop before age 5 (Westen, 1991). The construct of object relations is important to understand because early interactions form the foundation of the parent-child relationship, which is related to the development to self-efficacy. Through the early interactions with the caregiver, the child learns to develop expectations about him/herself and others, which form the basis of future self-representations. Previous research has linked the development of object relations to the development of social cognition.

Social Cognition

Social cognition refers to the manner in which individuals interpret and analyze human action. Forrester (1992) defines social cognition as an "understanding of complex, purposeful social behavior" (p. 2). Numerous theories about the development of social cognition have been generated. Certain social cognition researchers believe that social knowledge develops similarly to other cognitive knowledge and that social cognition is essential to effective social interaction in children and adults. Developmental research suggests that social cognition develops through "theory of mind". Children develop a system of rules based on social experiences and employ the system of rules to predict and explain the actions and thoughts of others. The system of rules is based on children's beliefs and desires early in life. Social cognition develops as children's desires are not met and when children learn that beliefs about the world can be false (Forrester, 1992). Researchers believe that theory of mind develops around ages 4-5 when children begin to learn that beliefs about the world may be false.

A second theory of social cognition suggests that social cognition is based on a child's attachment to primary caregivers, which may affect the child's perceptions and attitudes in other significant relationships (Humphress, O'Connor, Slaughter, Target, & Fonagy, 2002). Several parent factors may put children at risk for the development of poor social cognitive skills, including child maltreatment and parent psychopathology. Researchers posit that these parent factors may deprive the child of a positive social role model, thus impeding the development of good social cognitive skills (Humphress et al., 2002). Previous research has also linked social cognition to child behavior and adjustment (Downey & Walker, 1989; Hala, 1997; Underwood & Moore, 1982). Specifically, children with better social cognitive skills are more likely to engage in prosocial behavior (i.e., any voluntary behavior intended to benefit another; Hala, 1997). Children's ability to perspective-take allows them to gain a better understanding of others' emotional states and reactions, which, in turn, fosters prosocial behavior and empathy (Underwood & Moore, 1982). Additionally, previous research suggests that poor social cognitive skills are associated with aggression and rejection by peers (Downey & Walker, 1989).

Social Cognition and Object Relations

Social cognition and object relations both develop through social learning processes in which individuals' interpersonal experiences, particularly with primary caregivers, shape the processing of social information (Kelly, 2007). Social cognition and object relations both rely on systems or structures, whether it be a system of rules or an organizational structure, to acquire, process, and organize information. Previous research on social cognition and object relations has focused primarily on developmental differences in object representations and the relationship between object relations and empathy in children (Niec & Russ, 2002; Westen, 1991). Research conducted by Westen (1991) suggests that developmental differences in object relations may be viewed from a social cognition context. Westen (1991) examined four primary object relations factors in a population of 2nd and 5th grade children with the purpose of exploring developmental

differences. The results of the study suggest that developmental differences are present in three of the four primary factors, including complexity of representations, understanding of social causality, and capacity for emotional investment in relationships. The fourth factor, the affect in relationships, remained stable throughout development. The results of the study suggest that children's object relations tend to mature as they develop, with the exclusion of affect in relationships, which appears to remain stable. Niec and Russ (2002) found that greater maturity in object representations was related to greater levels of child- and teacher-rated empathy. Previous research examining object relations in the context of social cognition has demonstrated the importance of the development of mature, stable object representations in the achievement of positive outcomes for children (Westen, 1991).

Given that the development of high self-efficacy has been associated with prosocial behavior, academic achievement, and effective peer relationships, and poor self-efficacy has been associated with depression, behavior problems, and decreased social competence, it is critical to understand the factors associated with the development of social self-efficacy. Additionally, it is essential that children develop a sense of social self-efficacy in preparation for the demands of adolescence. Moreover, a greater understanding of the development process may help achieve positive child outcomes. By understanding the relationship between parenting factors and child social self-efficacy, it may be possible to target parenting factors in an attempt to improve child social self-efficacy and to provide better outcomes for the child. Additionally, an examination of the relationship between parent and child social cognition may lead to a greater understanding of the manner in which parents influence child social cognition.

The hypotheses that will be tested in the current study are as follows:

1. Parent ratings of parenting style (i.e., authoritarian, permissive, and authoritative) will be positively related to child ratings of social self-efficacy, such that parenting styles characterized by higher levels of supportiveness, reciprocity, and inductive control (i.e., authoritative and permissive) will be associated with higher child social self-efficacy.

2. Parent ratings of parent social self-efficacy will be positively related to child ratings of child social self-efficacy.
3. A match between parent and child gender will moderate the relationship between parent social self-efficacy and child social self-efficacy, such that same-gender dyads will demonstrate stronger associations between parent social self-efficacy and child social self-efficacy.
4. Participant ethnicity will moderate the relationship between parent social self-efficacy and child social self-efficacy.
5. Child ratings of child social self-efficacy will be related to child social cognition, such that higher ratings of social self-efficacy will be positively related to mature ratings of four social cognitive factors (i.e., Complexity of Representations of People, Affective Quality of Representations, Emotional Investment in Relationships, and Understanding of Social Causality).
6. Parent social cognitive skills will be associated with child social cognitive skills.
7. Parent social self-efficacy will explain a significant amount of unique variance in predicting child social self-efficacy after controlling for parenting style and child global self-worth.

Additional exploratory analyses examined the associations among parent ratings of global self-esteem and the variables of interest. These relationships were examined by controlling for parent and child global self-esteem in partial correlations.

RESEARCH DESIGN AND METHODS

Participants

Eligible participants in the current study included children, ages 8-10, and their parent or primary caregiver. Inclusion of children and their parents required that they be able to speak English and that they be without any cognitive or developmental delays that may affect reading comprehension.

Recruitment

Participants were recruited from Catholic elementary schools and parishes in the Milwaukee area. An effort was made by the researchers to recruit from schools with diverse student populations from a variety of different neighborhoods. Overall, 21 schools were contacted, and 10 schools and one parish participated in the current study. There was variability among the participating schools in terms of their enrollment from parishes and/or families participating in Milwaukee's Parental Choice Program. A list of participating schools and the number of students from each school is included in Table 1. Four recruitment methods were used in the present study. Eligible families received a letter at school explaining the study and were asked to indicate their interest in participation, to include contact information if interested, and to return that information to the researcher. Following each research visit, participating families were given a postcard containing information about the study and were asked to distribute the postcard to another family with a potential interest in participating. Additionally, the principal investigator contacted the director of the Christian Formation program at Church of the Gesu. The director distributed letters to eligible families enrolled in Child and Family Formation classes on Sunday mornings and asked them to indicate their interest in participating following the classes. Finally, the principal investigator attended an open house at one of the participating schools, St. Catherine School, and explained the study to eligible families. Each of the participating schools was

offered a workshop, conducted by the principal investigator, in return for their participation in the present study. Fifty-one families participated in the present study.

Table 1

Participating Schools and Parishes

<u>School/Parish</u>	<u>n (%)</u>
Catholic East	4 (7.8)
Christ King	10 (19.6)
Church of the Gesu	3 (5.9)
Mother of Good Counsel	9 (17.6)
Northwest Catholic (East and West Campus)	9 (17.6)
St. Margaret Mary	3 (5.9)
St. Mary	5 (9.8)
St. Matthias	8 (15.7)

Procedure

Approval was obtained from the Institutional Review Board at Marquette University. Informed consent and assent were obtained for all participants upon arrival at the research visit. Participants were given the opportunity to ask questions during the consent procedures. The study materials included two separate sets of questionnaires; one set included all of the measures for the child to complete, and the other set included all of the measures for the parent to complete. Parents and children completed the study materials separately and alerted the researcher about any questions or concerns they had during their participation in the study.

Parent-child dyads then participated separately in a task, which required them to respond to a set of cards depicting pictures of social scenarios. Parents and children were asked a series of

questions requiring them to explain what was occurring in the pictures and what the individuals in the pictures were thinking and feeling. Parent and child responses to the pictures were audiotaped. Parent and child responses to the pictures were scored using the Social Cognition and Object Relations Scale-Revised (SCORS-R; Westen, 2002). Upon completion of the study, participants were given a \$15 gift card to either Target or Pick 'n Save.

Measures

Demographic Questionnaire (Parent report)

Parents completed a demographic questionnaire with questions on basic demographic information about the parent and the child: parent occupation, education, annual income, ethnicity, and marital status and child age, gender, and grade in school.

Self-Perception Profile for Children (SPPC; Harter, 1985; Child report)

The Self-Perception Profile for Children is a 36-item self-report measure utilized with children 8-15 years of age that assesses five domains of self-concept, including scholastic competence, social competence, athletic competence, physical appearance, and behavioral conduct; the SPPC also contains a measure of global self-worth (Harter, 1985). Each item includes pairs of statements that describe perspectives on particular aspects of self-evaluation (e.g., “Some kids wish their body was different, but other kids like their body the way it is”). Children were asked to indicate which statement best described them and then to rate how well the statement described them on a 4-point Likert scale ranging from “sort of true” to “really true”. The scores were then summed with higher scores indicating more positive self-perceptions.

Favorable levels of internal consistency have been reported with Cronbach's α ranging from .80 to .90 at the subscale level (Harter, 1990). In the present study, Cronbach's α were .74 on the Athletic and Scholastic scales, .75 on the Global scale, .77 on the Social scale, .79 on the Behavioral Conduct scale, and .81 on the Physical Appearance scale. Test-retest reliability at the subscale level has been estimated to range from .40 to .65 at one year to one month intervals

(Harter, 1990). Scores on the SPPC have demonstrated good convergent validity with parent, teacher, and peer ratings and have correlated negatively with symptoms of psychopathology (Muris, Meesters, & Fijen, 2003).

Parental Authority Questionnaire-Revised (PAQ-R; Reitman, Rhode, Hupp, & Altobello, 2002; Parent report)

The Parental Authority Questionnaire-Revised (Reitman et al., 2002) is a 30-item parent-report measure that assesses parenting style based on Baumrind's (1971) model of three parenting prototypes (i.e., authoritarian, authoritative, and permissive). Parents completed the PAQ-R and were required to use a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) to indicate how well each item described their parenting behavior (e.g. "Once family rules have been made, I discuss the reasons for the rules with my children" or "I do not allow my children to question the decisions that I make"). Items on each of the subscales were summed and total scores on each of the three subscales (i.e., authoritative, authoritarian, and permissive) were examined for the participating parent. Scores for each parenting style range from 10 to 50 with higher scores indicating higher levels of that particular parenting style.

According to Reitman et al. (2002), the PAQ-R subscales demonstrated moderate internal consistency, with Cronbach's α of .72 on the Authoritarian scale, .76 on the Permissive scale, and .77 on the Authoritative scale. In the current study, internal consistencies were $\alpha=.52$ on the Permissiveness scale, $\alpha=.55$ on the Authoritarian scale, and $\alpha= .69$ on the Authoritative scale. One-month test-retest subscale reliability on the PAQ ranges from .54 to .88. Previous research has demonstrated good discriminant validity among the three subscales (Reitman et al., 2002). Additionally, comparative analyses between responses on the PAQ-R and responses on a social desirability measure indicated that responses on the PAQ-R did not appear to be adversely affected by social desirability bias (Reitman et al., 2002).

Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1979; Parent report)

The Rosenberg Self-Esteem Scale is a 10-item self-report measure utilized with adults that

assesses global self-esteem. Each item consists of a statement relating to global self-esteem (e.g. “On the whole, I am satisfied with myself”). Parents completed the RSE and were required to use a 4-point Likert scale ranging from 1 (“strongly agree”) to 4 (“strongly disagree”) to indicate how well each statement described them. The final score is calculated by first reverse scoring half of the items, according to author specifications, and then summing all of the items. Previous research has demonstrated an internal consistency coefficient of .92 and test-retest reliability over a two-week period ranging from .85 to .88 (Rosenberg, 1979). The Rosenberg Self-Esteem scale has demonstrated significant correlations with other measures of self-esteem, such as the Coopersmith Self-Esteem Inventory (Rosenberg, 1979). The Cronbach’s alpha for the present study is $\alpha = .80$.

Scale of Perceived Social Self-Efficacy (PSSE; Smith & Betz, 2000; Parent report)

The Scale of Perceived Social Self-Efficacy is a 25-item measure utilized with adults to assess perceived self-efficacy in a variety of social situations. Each item lists a social activity (e.g. “Make friends in a group where everyone else knows each other” or “Start a conversation with someone you don’t know very well”). Parents completed the PSSE and were required to use a 5-point Likert scale ranging from 1 (no confidence) to 5 (complete confidence) to indicate their level of self-efficacy for a particular task. The final score is calculated by summing all of the items. Previous research has demonstrated an internal consistency coefficient of .94 and test-retest reliability over a three-week interval ranging from .68 to .86 (Smith & Betz, 2000). In the current study, the PSSE demonstrated acceptable reliability (Cronbach’s $\alpha = .95$). Smith and Betz (2000) demonstrated that the PSSE is significantly correlated with other measures of social self-efficacy, such as the Social Confidence Scale of the Skills Confidence Inventory ($r = .62$ for males; $r = .53$ for females).

Social Cognition and Object Relations Scale-Revised (SCORS-R; Westen, 2002)

The Social Cognition and Object Relations Scale-Revised is a structured method of coding

responses to the Thematic Apperception Test (TAT). The original version of the SCORS was developed by Westen and colleagues in 1995. The SCORS was originally rated according to a Q-sort procedure and included four primary scales. The original SCORS was revised to create the SCORS-R, which can be used to examine five social cognitive scales including Complexity of Representations of People, Affective Quality of Representations, Emotional Investment in Relationships, Emotional Investment in Values and Moral Standards, and Understanding of Social Causality (Westen, 2002). The TAT consists of 31 picture cards; 14 of which depict social and interpersonal situations. The cards are specifically designed for particular age and gender groups. Individuals are asked to tell a story based on the situation depicted in each picture. Per recommendations offered by Westen (2002) and Hilsenroth, Stein, and Pinsker (2007), parents and children in the current study were presented with six recommended TAT cards, and each parent and child told six stories. The current study utilized SCORS-R coding guidelines to evaluate responses to the following TAT cards: 1, 3BM, 4, 7GF or 7BM, 10, and 13B. Card 7 has two gender-based versions (GF for girls/females and BM for boys/males), and an appropriate card was administered based on participant gender. Parents and children were asked four specific questions concerning what was happening in the picture, what led up to the situation, what the people in the picture were thinking and feeling, and what the outcome of the situation would be. Responses were recorded during the administration and later transcribed and scored.

According to the guidelines outlined by Hilsenroth et al. (2007), each response was coded according to a 7-point Likert scale ranging from 1 (least mature) to 7 (most mature) for the four primary scales of interest (i.e., Complexity of Representations of People, Affective Quality of Representations, Capacity for Emotional Investment in Relationships, and Understanding of Social Causality). Participant scale scores were derived by computing a mean score for each TAT card across all raters. The mean scores were then collapsed across all cards to create a single score for each of the four sociocognitive factors. Specifically, four sociocognitive factor scores were computed for both parent and child participants.

The principal investigator and two research assistants were trained using the training methods outlined by Westen (2002) and Hilsenroth et al. (2007). Raters were introduced to the theoretical premise of the measure and the scoring criteria for each of sociocognitive factors. Each week raters were given practice protocols to score independently. Following independent scoring, raters met weekly to discuss scoring differences and refine scoring criteria. Raters scored a total of 20 practice protocols before beginning to score responses from the current study. For the practice protocols, all three raters were within 1 point of the ideal score for 90% of the parent and child protocols. Interrater reliability calculated using intraclass correlation coefficients ranged from .21 to .89 for the practice protocol scoring. Following the training sessions, six additional reliability meetings were held to continue to improve upon scales that had low interrater reliability.

For the current study, the scoring was divided among three raters: the principal investigator (Rater 1), an undergraduate research assistant (Rater 2), and a graduate research assistant (Rater 3). Rater 1 scored all of the parent and child protocols. Rater 2 scored 49% of the parent protocols and 33% of the child protocols. Rater 3 scored 17% of the parent protocols and 10% of the child protocols. A total of 17% of parent responses and 10% of child responses were coded by all three raters, 49% of parent responses and 33% of child responses were coded by two raters, and 100% were coded by at least one rater. For the first six participants, an attempt was made to blind the raters to the identity of the participant by assigning protocols based on interaction with participants at the data collection (i.e., research assistant working with the parent rated the child's protocol). However, this strategy was discontinued due to research assistant unavailability. Thus, the protocols were rated by the individuals who administered the tasks.

Previous research has demonstrated good psychometric properties of the SCORS when used with child and adolescent populations. Research conducted by Niec and Russ (2002) examining child social cognition demonstrated an uncorrected reliability coefficient of the SCORS-Q ranging from .80 to .98. The same study found good convergent validity between SCORS-Q

scores and teacher ratings of empathy and helpfulness. Research conducted by Tuber (1992) demonstrated good convergent validity between the SCORS and other measures of object relations, including the Mutuality of Autonomy Scale of the Rorschach.

For the current study, interrater reliability was calculated using percent agreement and intraclass correlation coefficients. An examination of percent agreement among Rater 1 and Rater 2 found that 95-98% of parent protocols and 89-100% of child protocols were within a one-point agreement for the four scores. Interrater reliability was examined for all three raters together as well as for each pair of raters (i.e., Raters 1 and 2, Raters 2 and 3, and Raters 1 and 3). Using intraclass correlation coefficients, interrater reliability ranged from .30 to .88 for parent protocols and from .01 to .84 for child protocols. There are several reasons why the interrater reliability for the current study is unexpectedly low. First, Rater 3 scored less than 20% of the practice protocols, which may have influenced the reliability of rater pairs that included Rater 3. Additionally, Rater 3 discontinued scoring early in the study, while Rater 1 and Rater 2 likely became more comfortable with the scoring criteria as the study continued. Second, observations of individual scores indicated limited variability in scores, with most scores falling in the middle of the distribution. Therefore, scores falling outside of the middle of the distribution may have influenced reliability. Greater variability was observed in the parent scores, which may have contributed to the higher interrater reliability in the parent sample. Due to the fact that Rater 3 scored less than 20% of the data and demonstrated poor interrater reliability with Rater 1 and Rater 2, the scoring data from Rater 3 was removed from the dataset prior to conducting the analyses. Results of the reliability analyses are summarized in Tables 2 and 3.

Table 2

Interrater Reliabilities for SCORS-R Parent Protocols

<u>Parent Scores</u>	<u><i>n</i></u>	<u>ICC</u>
Complexity of Representations of People All Coders	52	.61

Raters 1 and 2	149	.55
Raters 2 and 3	52	.46
Raters 1 and 3	52	.63
Affective Tone of Relationships		
All Coders	52	.76
Raters 1 and 2	149	.79
Raters 2 and 3	52	.74
Raters 1 and 3	52	.60
Capacity for Emotional Investment		
All Coders	52	.88
Raters 1 and 2	149	.84
Raters 2 and 3	52	.81
Raters 1 and 3	52	.78
Understanding of Social Causality		
All Coders	52	.67
Raters 1 and 2	149	.61
Raters 2 and 3	52	.76
Raters 1 and 3	52	.30

Table 3

Interrater Reliabilities for SCORS-R Child Protocols

Child Scores	<i>n</i>	ICC
Complexity of Representations of People		
All Coders	30	.01
Raters 1 and 2	101	.52
Raters 2 and 3	30	.51
Raters 1 and 3	30	.51
Affective Tone of Relationships		
All Coders	30	.84
Raters 1 and 2	101	.44
Raters 2 and 3	30	.77
Raters 1 and 3	30	.78
Capacity for Emotional Investment		
All Coders	30	.51
Raters 1 and 2	101	.44
Raters 2 and 3	30	.57
Raters 1 and 3	30	.08
Understanding of Social Causality		
All Coders	30	.59

Raters 1 and 2	101	.52
Raters 2 and 3	30	.74
Raters 1 and 3	30	.20

RESULTS

Data Analytic Plan

The distributions of scores were assessed for skewness and kurtosis. Results of the analyses indicated no concerns regarding the skewness and kurtosis of the variables of interest. The proposed hypotheses were examined using Pearson product-moment correlations (i.e., Hypotheses 1, 2, 5, and 7) and hierarchical multiple regressions (i.e., Hypotheses 3, 4, and 6).

Participant Descriptive Characteristics

Analyses were based on the full sample of 51 participants with the exception of the data from the Parent Information Form, specifically household income (n = 49) and child's ethnicity (n = 49), and the Rosenberg Self-Esteem Scale (n = 50), which had missing data. Due to the somewhat sensitive nature of some of the items on the Parent Information Form, participants were given the option of skipping selected items if they did not feel comfortable disclosing certain information. Missing items at the subscale level on the Perceived Scale of Social Self-Efficacy and the Parental Authority Questionnaire were replaced using mean substitution.

Descriptive statistics for parents' demographic characteristics are displayed in Table 4. As expected, the participating parents were primarily mothers (90.2%), but the sample also included five fathers (9.8%). There was a wide variability in the ages of parents with a range of 26 to 50 years. The sample was predominantly Caucasian (86.3%) and well educated (i.e., 82.4% had at least a 4-year college degree). There was a wide variability in the household income with 30.6% of the sample earning less than \$60,000 and 22.5% earning greater than \$120,000.

Descriptive characteristics for children's demographic characteristics are displayed in Table 5. The sample was 58.8% male with a mean age of 8.9 years. The sample was

predominantly Caucasian (69.4%) with 20.4% identifying as bicultural/multicultural, 6.1% identifying as Latino/Hispanic, and 4.1% identifying as African American.

Table 4

Parent Demographic Characteristics

	<i>M (SD)</i>	<i>Range</i>	<i>n (%)</i>
Participating Primary Caregiver			
Biological Mother			90.2
Biological Father			9.8
Age (in years)	40.3 (5.5)	26-50	
Highest Level of Education			
High School			5.9
Some College			5.9
Associate's Degree			5.9
Bachelor's Degree			54.9
Master's Degree			21.6
Doctoral Degree			5.9
Ethnicity			
Caucasian			86.3
African American			5.9
Latino			2.0
Bicultural/Multicultural			5.9
Marital Status			
Married			76.5
Separated			3.9
Divorced			13.7
Never Married			5.9

Household Income

Less than \$30,000	22.4
\$31,000-\$60,000	8.2
\$61,000-\$90,000	16.3
\$91,000-\$120,000	30.6
\$121,000-\$150,000	8.2
Greater than \$150,000	14.3

Table 5

Child Demographic Characteristics

	<i>M (SD)</i>	Range	<i>n (%)</i>
Gender			
Male			58.8
Female			41.2
Age (in years)	8.9 (.98)	6-11	
Ethnicity			
Caucasian			69.4
African American			4.1
Latino			6.1
Bicultural/Multicultural			20.4

Associations Among Demographic Characteristics and Variables of Interest

The descriptive data for the measures used in the present study is displayed in Table 6. Preliminary analyses examined the relationships among participant demographic characteristics (i.e., age, gender, ethnicity, education, and income) and the variables of interest. For the child participants, there was a moderate, positive relationship between child age and child social self-efficacy, $r = .28, p = .04$, which indicates that older children had higher social self-efficacy. A one-way between groups analysis of variance was conducted to further explore the impact of age on levels of social self-efficacy. Participants were divided into three groups according to their age (Group 1: 6-8 years old, $n = 16$; Group 2: 9 years old, $n = 20$; Group 3: 10-11 years old, $n = 15$). There was a statistically significant difference in the social self-efficacy scores for the three age groups, $F(2, 48) = 3.36, p = .04$. Post hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 (mean = 16.05, SD = 5.25) was significantly lower than Group 3 (mean = 19.87, SD = 4.03). Group 2 (mean = 16.95, SD = 3.56) did not differ significantly from either Group 1 or Group 3. Next, an independent samples t-test was conducted to compare the social self-efficacy scores for male and female children. There was a trend toward a significant difference in scores for males and females, $t(49) = 1.89, p = .07$, indicating that, on average, males tended to have higher social self-efficacy scores (mean = 18.49, SD = 4.31) than females (mean = 16.14, SD = 4.46). Finally, an independent samples t-test was conducted to compare the SCORS-R sociocognitive scores for male and female children. Results indicated a significant difference in scores for males and females on two of the sociocognitive factors, namely Complexity of Representations of People, $t(48) = -2.39, p = .02$ (males, mean = 2.76, SD = 0.41; females, mean = 3.00, SD = 0.27), and Understanding of Social Causality, $t(48) = -2.20, p = .03$ (males, mean = 2.66, SD = 0.46; females, mean = 2.92, SD = 0.31). Females were rated as having more developed descriptions of internal states and a more developed understanding of cause and effect in interpersonal relationships than males.

Among the parents, there was a moderate, negative relationship between parent age and authoritative parenting style. Specifically, as parent age increased, parents were significantly less likely to report using an authoritative parenting style, $r = -.34, p = .02$. No other significant relationships were found between parent demographic characteristics and the variables of interest.

Table 6

Means, Standard Deviations, and Ranges of Parent and Child Measures

	<i>Mean</i>	<i>SD</i>	<i>Range</i>
Parent Self-Report Questionnaires			
Parental Authority Questionnaire (PAQ)			
Authoritative Parenting	18.63	3.14	11-25
Authoritarian Parenting	27.07	4.21	16-39
Permissive Parenting	37.27	3.81	24-45
Perceived Social Self-Efficacy (PSSE)	91.68	16.88	47-125
Rosenberg Self-Esteem Scale (RSE)	14.97	3.35	19-29
Child Self-Report Questionnaires			
Self-Perception Profile for Children (SPPC)			
Social Self-Perception Score	17.48	4.52	6-24
Global Self-Worth Score	19.9	3.96	7-24
Social Cognition and Object Relations Scale – Revised (SCORS-R)			
Complexity of Representations of People			
Parent	3.25	.41	2.5-4.7
Child	2.86	.38	2.0-3.5
Affective Tone of Relationships			
Parent	4.06	.42	3.0-5.0
Child	4.03	.43	3.0-5.0

Capacity for Emotional Investment in Relationships			
Parent	3.23	.45	2.2-4.2
Child	3.02	.34	2.5-3.8
Understanding of Social Causality			
Parent	3.19	.46	2.3-4.7
Child	2.77	.42	1.5-3.3

Associations Among Parenting Style and Child Social Self-Efficacy

To examine the hypothesized associations among parenting style and child social self-efficacy, bivariate correlations were conducted, and the results are displayed in Table 7. There was no support for the proposed hypotheses regarding parenting style and child social self-efficacy. Results revealed small effects, but the correlations were not statistically significant.

Associations Among Parent Self-Perception Measures and Child Social Self-Efficacy

As proposed in the second hypothesis, there was a significant, positive relationship between parent social self-efficacy and child social self-efficacy, $r = .32, p = .02$. To examine whether social self-efficacy is distinct from self-esteem, a partial correlation was used to explore the relationship between parent social self-efficacy and child social self-efficacy while controlling for parent self-esteem. There was a moderate, positive correlation between parent social self-efficacy and child social self-efficacy after controlling for parent self-esteem, $r = .33, p = .02$. An additional partial correlation was used to explore the relationship between parent social self-efficacy and child social self-efficacy while controlling for child global self-worth. There was a moderate, positive correlation between parent social self-efficacy and child social self-efficacy after controlling for child global self-worth, $r = .32, p = .03$. Parent self-esteem was not

statistically significantly related to parent social self-efficacy, $r = .11$, n.s., or child social self-efficacy, $r = -.06$, n.s.

Table 7

Associations Among Parenting Style, Parent Self-Perception, and Child Social Self-Efficacy

<u>Measures</u>	<u>Child Social Self-Efficacy</u>
1. PAQ Authoritative	.12
2. PAQ Authoritarian	-.21
3. PAQ Permissive	-.10
4. Rosenberg Self-Esteem Scale	-.15
5. Scale of Perceived Social Self-Efficacy	.32*

Note: PAQ = Parental Authority Questionnaire

$n = 51$ for all correlations

* $p < .05$

Participant Gender and Ethnicity as Moderators of the Associations Between Parent and

Child Social Self-Efficacy

A hierarchical multiple regression was conducted to examine the third hypothesis, regarding whether same-gender parent-child dyads moderated the relationship between parent social self-efficacy and child social self-efficacy. Parent-child dyads were coded as either same gender ($n = 18$) or different gender ($n = 33$). Based on previous results, parent social self-efficacy was entered first in the model, followed by parent-child gender match. The overall model was significant, $F(3, 47) = 3.46$, $p = .02$, and explained 12.8% of the variance in child social self-efficacy prior to adding the interaction term. Parent social self-efficacy accounted for 8.2% of the variance in child social self-efficacy and the inclusion of parent-child gender match in the model resulted in an additional 7.5% of the variance being explained. The interaction term of same gender dyads and parent social self-efficacy was tested, and it was determined that same versus

different parent-child dyads was not a significant moderator of the relationship between parent social self-efficacy and child social self-efficacy. An independent samples t-test was conducted to compare the child social self-efficacy scores for same gender and different gender dyads. There was a trend toward a significant difference in scores for same versus different gender dyads, $t = -1.98, p = .05$, indicating that, on average, children in different gender dyads reported higher social self-efficacy (mean = 18.41, SD = 4.15) than did children in same gender dyads (mean = 15.89, SD = 4.73).

Due to the fact that the sample was predominantly Caucasian and demonstrated low representation from ethnic minority group members, the fourth hypothesis was not examined.

Associations Among Child Social Cognition and Child Social Self-Efficacy

Analyses examining the fifth hypothesis revealed a moderate, negative correlation between child social self-efficacy and Capacity for Emotional Investment in Relationships, $r = -.36, p = .01$. The remaining three sociocognitive variables, Complexity of Representations of People, Affective Quality of Relationships, and Understanding of Social Causality, were not related to child social self-efficacy (see Table 8).

Table 8

Associations Among Child Social Cognition and Child Social Self-Efficacy

<u>Social Cognition Factors</u>	<u>Social Self-Efficacy</u>
Child	
1. Complexity of Representations of People	-.28
2. Affective Tone of Relationships	-.19
3. Capacity for Emotional Investment in Relationships	-.36*
4. Understanding of Social Causality	-.01

Parent

1. Complexity of Representations of People	-.21
2. Affective Tone of Relationships	.45**
3. Capacity for Emotional Investment in Relationships	.12
4. Understanding of Social Causality	-.10

Note: n = 50 for all correlations

* $p < .05$

** $p < .01$

Associations Among Parent Social Cognition and Child Social Cognition

There was a strong, positive correlation between parent and child scores on the Affective Quality of Relationships factor, $r = .45$, $p = .001$ (see Table 8). However, the other three parent and child sociocognitive factor scores were not significantly related. Paired samples t-tests demonstrated statistically significant differences between parent and child scores on three of the sociocognitive factors, specifically Complexity of Representations of People, $t(49) = 4.42$, $p < .001$, Capacity for Emotional Investment in Relationships, $t(49) = 3.27$, $p = .002$, and Understanding of Social Causality, $t(49) = 4.81$, $p < .001$ (see Table 8).

The seventh hypothesis was not examined because parenting style and child global self-worth were not significantly related to child social self-efficacy. However, in order to better understand the factors that may impact development of child social self-efficacy, a hierarchical multiple regression was used to assess how child age and child sociocognitive scores may influence child social self-efficacy. Based on previous findings, child age was entered in the first step, followed by child sociocognitive scores (Capacity for Emotional Investment), and parent social self-efficacy. The overall model was significant, $F(3, 46) = 6.02$, $p = .002$, and explains 28.2% of the variance in child social self-efficacy.

DISCUSSION

The current study examined the relationships between parent social self-efficacy, social cognition, and parenting style and child social self-efficacy. Specifically, it was hypothesized that higher levels of social self-efficacy and more developed social cognition in parents would be positively related to their children's level of social self-efficacy and maturity of social cognition. Overall, a variety of parent and child characteristics were associated with child self-reported social self-efficacy.

Some interesting findings from the current study include the associations among participant demographic variables and the variables of interest. Specifically, older children were more likely to have higher social self-efficacy; this finding is consistent with previous research indicating that children's self-efficacy typically increases with age into early adolescence (Wigfield et al., 1991; 1997). Previous research on the relationship between gender social self-efficacy development has yielded inconclusive results (Felson & Zielinski, 1989; Nielsen & Metha, 1994; Schunk & Lilly, 1984; Schunk & Meece, 2006). In the present study, female children demonstrated greater maturity in interpreting the internal states of others and in understanding cause and effect in interpersonal relationships. Greater maturity in sociocognitive skills may allow female children to more accurately interpret the emotions of others and better understand how their own and others' behavior is related to outcomes in social interactions. These skills, which are likely socialized, may contribute to positive peer interactions and assist female children in maintaining interpersonal relationships. Additionally, a regression model including child age, child gender, and child social cognition predicted 28.2% of the variance in child social self-efficacy. This finding highlights the importance of examining demographic variables that may be related to the development of social self-efficacy.

Contrary to hypotheses, there was a lack of meaningful associations between parenting style and child social self-efficacy. In the current study, the Parental Authority Questionnaire

subscales demonstrated unexpectedly low internal consistency, which may have impacted the ability of the measure to accurately assess the different parenting styles. Upon further examination of the data, it was observed that many parents had written exceptions and stipulations on the questionnaire, which may indicate that parents were uncertain or not confident in their responses. This may have contributed to the low internal consistency observed in the measure. A measure of child-reported parenting style may have been useful to provide an additional perspective of parenting style. Finally, previous research has reported that the Parental Authority Questionnaire demonstrates good psychometric properties in Caucasian populations, but demonstrates less acceptable psychometric properties in minority populations (Reitman et al, 2002). Thus, its use with a variety of populations should be investigated further.

Notably, there was a statistically significant association between parent social self-efficacy and child social self-efficacy, and the relationship remained intact even while controlling for the influence of parent self-esteem and child global self-worth. Additionally, parent self-esteem was not related to parent social self-efficacy or child social self-efficacy. This finding is particularly compelling because parents and children each reported on their own social self-efficacy. Additionally, this finding provides support for the differentiation of self-esteem and social self-efficacy as separate constructs and highlights the importance of assessing socially-specific self-perceptions in addition to perceptions of global self-worth.

Interestingly, children in different gender dyads reported higher social self-efficacy than children in same gender dyads. This finding is contrary to previous research, which has demonstrated that children are more likely to imitate a model that they perceive as similar to themselves (Schunk, Hanson, & Cox, 1987; Schunk & Meece, 2006). However, previous research has also demonstrated that children are more likely to imitate a model that they perceive as nurturing, which is likely embodied in the parental figure (Whitbeck, 1987). Since the majority of parent participants in the present study were mothers (~ 90%), the study was limited in the ability to truly examine the influence of same- versus different-gender dyads on child social

self-efficacy. Contrary to hypotheses, none of the participant demographic factors moderated the relationship between parent social self-efficacy and child social self-efficacy. Since these associations have not been examined in previous studies, the present study provides impetus for additional investigation in future research.

There were few associations between children's social cognition and social self-efficacy. Three of the child sociocognitive factors were unrelated to child social self-efficacy, while the other factor was moderately, negatively related to child social self-efficacy. The unexpected findings may be a result of the multi-method assessment of social self-efficacy and social cognition. Social self-efficacy was assessed using a face valid self-report questionnaire, which may have resulted in inaccurate reporting and inflated responses. Social cognition was assessed using a performance-based measure, which may have made it more difficult to understand the purpose of the measure and to modify responses. Additionally, these findings highlight the fact that perceptions of interpersonal efficacy may be largely different from the developmental maturity of cognitions in interpersonal interactions. For example, children may rate themselves as being highly efficacious in social interactions, yet they do not have the sociocognitive skills to accurately assess others' perceptions of themselves and their behavior. Future research should examine additional factors, such as peer status, to better understand the relationship between social self-efficacy and social cognition.

There was a strong, positive association between parent and child scores for only one of the sociocognitive factors, namely the Affective Quality of Relationships factor. Interestingly, significant developmental differences were observed between parent scores and child scores for the other three factors, suggesting a possible developmental trajectory in the maturation of social cognition. This finding is consistent with previous research conducted by Westen (1991), which found developmental differences for each of the sociocognitive factors with the exception of Affective Quality of Relationships.

There were several limitations to the current study. One of the limitations of the study is limited racial/ethnic diversity in the study sample. While an effort was made to recruit participants representing a variety of races and ethnicities, the sample was predominantly Caucasian, particularly among parents. This limitation highlights the importance of developing and employing different recruitment strategies that may be more appropriate for individuals from ethnic minority groups, such as using a face-to-face contact approach (Mendez-Luck, Trejo, Miranda, Jimenez, Quiter, & Mangione, 2011). Another limitation involves the scoring of the TAT responses. While an initial effort was made to ensure the blindness of the raters to the participants' other data, the limited availability of one of the raters required that the other trained raters score each of the protocols. However, this did not appear to be a significant problem due to the fact that TAT responses were kept separate from other data. Additionally, limited variability in child scores on the TAT may have influenced reliability. A final limitation of the current study was the poor internal consistency of the PAQ subscales.

The present findings suggest several possibilities for future research. Further research studies could examine the relationships among child social self-efficacy, social cognition, and peer group status. An examination of the relationships among these three constructs would allow for a better understanding of the manner in which self-perceptions and interpersonal interpretations are related to functioning in peer situations. Furthermore, future research should use additional reporters (e.g. teachers) and methods of gathering information (e.g. behavioral observation) to better understand these constructs. Finally, future research should more closely examine the role of age in children's ability to accurately understand their own self-efficacy. More specifically, future research should examine whether or not young children are able to accurately assess their own social self-efficacy by using information from their social interactions.

The findings of the current study present several important clinical implications. The positive relationship between parent social self-efficacy and child social self-efficacy suggests

that fostering parent social self-efficacy may result in increases in children's social self-efficacy. Programs could focus on the role of parent modeling as a significant influence in child development of social self-efficacy. Additionally, findings from the current study emphasize the fact that the match between parent and child gender may not be as important as was previously understood, and that both parents likely have an equal influence on their children's social self-efficacy. More specifically, the stereotypical gender traits associated with the task, such as having insight into interpersonal relationship functioning, may have a greater influence than the parent or child's biological sex. For example, social tasks more typically associated with feminine traits may lead to higher ratings of social self-efficacy in children who identify more strongly with femininity.

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