

## ABSTRACT

Title of Dissertation: CONGRUENCE OF SELF-OTHER PERCEPTIONS ABOUT COMPETENCE, PEER VICTIMIZATION, AND BULLYING AS PREDICTORS OF SELF-REPORTED EMOTIONS

Karen L. Nuijens, Doctor of Philosophy, 2006

Dissertation directed by: Professor Hedwig Teglasi-Golubcow  
Department of Counseling and Personnel Services

This study examined self-, teacher-, and peer-perceptions of competence, peer victimization, and bullying behavior as they relate to self-reported depression, anxiety, anger, and global self-worth. Participants included 99 second- and third-grade students and their teachers from one school located in the Washington, DC metropolitan area. The sample of students was ethnically diverse (66.7% African American, 17.2% Hispanic, 11.1% Asian American, 5.1% White). Preliminary analyses were conducted to examine the relationships among self-perceptions. As expected, self-perceptions of competence (social acceptance, behavioral conduct, academic competence) positively correlated with one another, where self-perceived victimization and bullying negatively correlated with self-perceived social acceptance and behavioral conduct. As expected, the aforementioned self-perceptions were significantly related to self-reported emotions. Here, self-perceived victimization uniquely predicted self-reported depression and anxiety scores, self-perceived academic competence uniquely predicted self-reported anger scores, and self-perceived academic competence and behavioral conduct uniquely

predicted global self-worth scores. Two sets of hypotheses were tested regarding the congruence of self-, teacher-, and peer-perceptions. First, as predicted, teacher- and peer-perceptions more strongly related with one another than with self-perceptions. Linked to this finding, self-perceived victimization and bullying were more highly predictive of self-reported competence, where teacher- and peer-perceived victimization and bullying were more highly predictive of teacher- and peer-reported competence. Second, the relative impact of self-perceptions and discrepancies between self- and other-perceptions on self-reported emotions was examined. This is a departure from past research, which has typically examined self-other discrepancies independent of self-perceptions. Results showed that self-perceptions were more strongly related to self-reported emotions than were self-other discrepancies. However, interactions between these variables in a subset of the analyses argue for the inclusion of self- and other-perceptions in this line of research. The pattern of interactions suggests that discrepancies between self- and other-perceptions had little impact on self-reported emotions for children who reported low competence or high victimization. These children tended to report more negative emotions compared to peers whether their self-appraisals agreed or disagreed with others' appraisals. Conversely, children who reported high competence or low victimization often reported more negative emotions compared to peers when their appraisals were unfavorable relative to others' appraisals.

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by

Karen L. Nuijens

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Advisory Committee:  
Professor Hedwig Teglasi-Golubcow, Chair  
Professor Gregory R. Hancock  
Professor Courtland C. Lee  
Dr. Lee Rothman  
Professor William O. Strein

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# Chapter 1: Introduction

## Background and Purpose of the Study

It is common in popular culture to discuss the self-concept construct as if it is one-dimensional. However, the view that the self-concept construct is multidimensional goes back as far as William James (1890, 1892) who proposed the distinction between the I-self, the “knower” or the active observer, and the Me-self, the “known” or the observed. The I-self is consciousness in the form of moment-to-moment experience, whereas the Me-self is consciousness of consolidated attributes that can be verbalized. While the I-self plays a large role in the development of the Me-self, James felt that it is of little use in the prediction of behavior and instead belongs in the field of philosophy (Epstein, 1973). The Me-self, on the other hand, is explicitly known to the individual and is the component of self that has commonly become referred to as, and measured as, self-concept. Although recent research provides evidence that measures of implicit self-esteem, a portion of the I-self, can be used to predict outcomes that are independent of explicit self-esteem, a portion of the Me-self (Schimmack & Diener, 2003; Shimizu & Pelham, 2004), the current study examined only the Me-self.

The Me-self, according to James (1890, 1892), can be subdivided into discrete parts including the material self, the social self, and the spiritual self. Contemporary models of self-concept also divide the Me-self into distinct parts, though conceptualizations of the various dimensions that are included vary according to different models (e.g., Harter, 1985a; Marsh, 1990). Regardless, there is a high level of agreement among theorists that self-concept is a multidimensional construct. The multidimensional

nature of self-concept is important because different dimensions may have varying implications for functioning and intervention planning. Therefore, it is important to be clear about the specific aspect of self-concept that is being discussed or targeted for intervention.

Self-report instruments are commonly used to gain insight into one's evaluation of competence across various dimensions, such as social acceptance, academic competence, athletic competence, physical appearance, and behavioral conduct (Harter, 1985a; Marsh, 1988; Shavelson, Hubner & Stanton, 1976). Although the term self-esteem is frequently used interchangeably with self-concept, self-esteem is most often measured as one dimension within a self-concept instrument. Conceptually, self-esteem is a broader assessment of one's overall value as a person. Harter (1985a) argued that global self-worth, her term for self-esteem, is a qualitatively different self-judgment than the previously mentioned competence dimensions due to the strong affective component that goes into the evaluation of global self-worth. Because of this, the current study examined global self-worth as an indicator of self-reported emotion as has been done in previous research (Harter & Marold, 1994).

Past research has demonstrated that various dimensions of the self are significantly related to one another and are significantly related to emotional functioning. Self-perceptions of competence and global self-worth have been shown to positively relate to one another (Berndt & Burgoyne, 1996; Harter, 1985a), and negatively relate to depression and anxiety (McGrath & Repetti, 2002; Muris, Meesters & Fijen, 2003). In addition, self-perceived victimization and bullying behavior have been shown to negatively relate to self-perceived competence and global self-worth (Austin & Joseph,

1996; Andreou, 2000; Hawker & Boulton, 2000; Mynard & Joseph, 1997). Self-perceived victimization also has been shown to positively relate to self-reported depression and anxiety (Austin & Joseph; 1996; Grills & Ollendick, 2002; Juvonen, Nishina, & Graham, 2000). While these findings have been consistent in previous research, few studies of this nature have been conducted with diverse samples children. Therefore, preliminary analyses were conducted in the current study to examine how self-perceptions related to one another in a sample of largely minority second- and third-grade children. The following self-perceptions were examined: (a) social acceptance, (b) academic competence, (c) behavioral conduct, (d) peer victimization, and (e) bullying behavior. Preliminary analyses were also conducted in the current study to examine how the aforementioned self-perceptions related to the following self-reported emotions: (a) depression, (b) anxiety, (c) anger, and (d) global self-worth.

Self-perceptions, with the exception of global self-worth due to its strong emotional component, also may be compared to others' views of the individual (referred to as *other-perceptions* throughout the current study). Harter (1998) suggested that self-knowledge may depend to a large extent on the way others perceive and react to our behavior. This suggestion corresponds to the point Cooley (1902) made when he coined the term "looking-glass-self" to explain how self-images are constructed. However, there is evidence that self-perceptions and other-perceptions are only moderately correlated (Cole, 1991a, Marsh, 1988, 1990; Marsh, Craven & Debus, 1998). Researchers, particularly in the adult literature, have begun to look at this lack of agreement as a meaningful variable in its own right. Examining how self-perceptions and other-perceptions relate to one another can help us better understand self-images. It is possible

that studies and intervention programs that look at only one perspective may be missing important information. The first research question in the current study, therefore, examined congruence between self-perceptions and other-perceptions across self-concept dimensions and across pairs of raters (self-teacher, self-peer, teacher-peer).

Cognitions related to the self do not occur independently but rather are screened through emotion. The literature suggests that self-judgments are intricately tied to the way we feel about ourselves. It is common for people to have a self-enhancement bias where they take in positive information about themselves more easily than negative information (Mezulis, Abramson, Hyde, & Hankin, 2004). This tendency may lead one to have positive self-perceptions relative to other-perceptions. Some theorists feel that having such “positive illusions” helps maintain a healthy self-image and leads to fewer emotional difficulties (Taylor & Brown, 1988), although other theorists feel that inflated self-perceptions may be adaptive in the short term, yet harmful in the long-term (Robins & Beer, 2001). In addition, there is evidence that “negative illusions,” or self-perceptions that are lower than other-perceptions, are related to poorer emotional functioning (Brown, 1990). Whereas this issue has been studied in the adult literature, it has received little attention in children’s research. The second research question, therefore, examined whether discrepancies between self-perceptions and other-perceptions were meaningfully related to children’s self-reported emotions.

### Overview of the Questions

The current study utilized archival data collected by this researcher and five other school psychology doctoral students during the spring of 2003. Two preliminary questions examined how self-perceptions were related to one another and to self-reported

emotions in a culturally diverse sample of second- and third-grade children. These analyses provided an opportunity to compare patterns among the self-reported measures that were used in the current study to previous research that used the same or similar measures. Two research questions examined the relationship between self-perceptions, teacher-perceptions, and peer-perceptions. The first research question examined congruence between self- and other-perceptions. The second research question examined whether discrepancies between self- and other-perceptions were meaningfully related to self-reported emotions. Specifically, the questions were:

*Preliminary Question 1.* How do self-perceptions relate to one another across the following dimensions: (a) social acceptance, (b) academic competence, (c) behavioral conduct, (d) peer victimization, and (e) bullying behavior?

Based on previous research, two hypotheses were made:

*Hypothesis 1.* Self-perceptions of social acceptance, academic competence, and behavioral conduct will positively relate to one another.

*Hypothesis 2.* Self-perceptions of victimization and bullying behavior will negatively relate to self-perceptions of social acceptance, academic competence, and behavioral conduct.

*Preliminary Question 2.* How do self-perceptions relate to the following self-reported emotions: (a) depression, (b) anxiety, (c) anger, and (d) global self-worth? Based on previous research, one hypothesis was made:

*Hypothesis 3.* Children who report lower competence and higher victimization will report higher depression and anxiety scores, and lower global self-worth scores. Children who report higher bullying behavior will report lower global self-worth scores.

*Research Question 1.* How do self-perceptions relate to other-perceptions across self-concept dimensions and across pairs of raters? See Table 1 for an overview of the comparisons. Based on previous research, two hypotheses were made:

*Hypothesis 4.* There will be greater congruence between teacher-peer perceptions than between self-teacher or self-peer perceptions.

*Hypothesis 5.* Self-perceptions of victimization and bullying behavior, compared to other-perceptions, will more strongly predict self-perceptions of competence. Other-perceptions of victimization and bullying behavior, compared to self-perceptions, will more strongly predict other-perceptions of competence.

Table 1

*Overview of Self-Other Comparisons in the Current Study*

Dimension	Self-Rated	Teacher-Rated	Peer-Rated
Social Acceptance	X	X	X
Academic Competence	X	X	
Behavioral Conduct	X	X	
Peer Victimization	X	X	X
Bullying Behavior	X	X	X

*Research Question 2.* Do discrepancies between self-perceptions and other-perceptions of competence, victimization, and bullying behavior predict self-reported emotions?

Based on previous research, two hypotheses were made:

*Hypothesis 6:* Children who underrate their competence relative to other-perceptions will report higher depression and anxiety scores, and lower global self-worth scores. The opposite pattern will be found for children who overrate their competence relative to other-perceptions.

*Hypothesis 7:* Children who overrate their victimization relative to other-perceptions will report higher depression and anxiety scores, and lower global self-worth scores.



### Significance of the Study

Examination of the self-concept construct is inherently compelling due to the large value current literature places on self-perceptions as a factor in motivation, decision-making, emotional functioning, and achievement. Although dimensions of self-concept are generally measured using simple rating scales, as was the case in the current study, the construct is complex and theoretically related to the other variables in the current study (peer victimization, bullying behavior, and self-reported emotions). This study offers a more precise look at how specific self-concept dimensions are related to these other variables, providing a more complete picture of the overall construct.

Several studies have examined congruence between self- and other-perceptions during middle childhood through adolescence but research is needed on this topic during the transition from early to middle childhood. The transition from early to middle childhood, which occurs around the age of eight, is a particularly active time in the development of self-representations. At this age, children are increasingly able to focus on internal characteristics of self and others, and they develop an understanding of these characteristics at a deeper level (Harter, 1999). In addition, children's self-perceptions, which before this age tend to be inflated relative to other-perceptions, begin to align more closely with other-perceptions. This study is valuable because it provides information about whether self-perceptions and other perceptions are more closely aligned for specific dimensions during this transition period. For instance, it is possible that self-perceptions of academic competence are the first to become more closely aligned with other-perceptions since the criteria for judging academic competence is more objective and easily verified compared to socially-based dimensions (Wayment & Taylor, 1995).

The current study utilized a different combination of self- and other-rating instruments than has been used in past research. Previous studies have typically examined congruence of self- and other-perceptions using alternate forms of the same measure; most commonly the self-report and teacher-report versions of the Self-Perception Profile for Children (SPPC; Harter, 1985a), or the Self-Description Questionnaire (SDQ; Marsh, 1988, 1990). This study evaluated teacher- and peer-perceptions using alternate tools. For instance, self-perceptions of academic competence were measured using the SPPC, but teacher perceptions of academic competence were measured using the Learning Problems Scale of the Behavioral Assessment System for Children: Teacher Rating Scales (BASC-TRS; Reynolds & Kamphaus, 1992). Use of these measures provided an opportunity to perform a conceptual replication of previous findings, and may in fact be a more authentic way to examine congruence of self- and other-perceptions since it utilized measurement instruments that were validated to provide data on other-perceptions of specific competencies. Also, unlike the majority of previous studies that examined only two perspectives, three perspectives were compared in the current study (self, teacher, and peer).

The methodology that was used to examine the relationship between self-other discrepancies and self-reported emotions is also an important contribution. The current study examined discrepancy scores on a continuum, where past studies often separated participants into distinct groups (e.g., overraters, underraters, congruent raters). Leaving the discrepancy variables on a continuum during the regression analyses allowed for a post hoc exploration of how various magnitudes of discrepancies impacted self-reported emotions. In addition, the current study examined how self-perceptions interacted with

self-other discrepancies when predicting self-reported emotions. This is important because past research has shown a significant relationship between self-perceptions and self-reported emotions, and a significant relationship between self-other discrepancies and self-reported emotions. Including self-report and self-other discrepancies in the same analyses helped to examine which had a greater impact on self-reported emotions.

In recent years, the importance of developing and using culturally appropriate psychological measures has been widely discussed in the assessment literature. The SPPC (Harter, 1985a), which was used in the current study to assess children's self-perceptions, has been criticized for being developed using a sample of children from Colorado that was 90% White. While the SPPC has been used widely in various European countries with results similar to those found by Harter, few studies have used the instrument in the United States with minority children. This study offered an opportunity to utilize the SPPC with a culturally diverse population of students (66.7% African American, 17.2% Hispanic, 11.1% Asian, 5.1% White).

Finally, results from the current study have implications for assessing children's self systems and for planning interventions. An examination of how self- and other-perceptions vary may be important when assessing children's self systems. It is likely that different reporters provide unique glimpses of an individual. Therefore, examining various perceptions may paint a more complete picture of an individual than looking at only one source of information. Regarding intervention, rather than implementing interventions that are vaguely targeted at increasing children's self-concepts, it may be that a particular dimension is more important to target than others depending on the profile of a specific individual.

### Definition of Terms

- Academic competence: perceptions of ability in the realm of scholastic performance.
- Behavioral conduct: perceptions of the degree to which children act the way they are supposed to and avoid getting into trouble.
- Bullying behavior: perceptions of being the perpetrator of negative physical and/or verbal actions.
- Competence: as used in the current study and by Harter (1985a), refers to social acceptance, academic competence, and behavioral conduct.
- Congruent raters: refers to agreement between self-perceptions and other-perceptions.
- Global self-worth: the extent to which children like themselves as a person and are happy with the way they are leading their lives. This dimension is often referred to as self-esteem. In the current study, global self-worth was used as a measure of self-reported emotion due to its strong affective component.
- Other-perceptions: refers to teacher-perceptions and peer-perceptions of children's competence, victimization and bullying behavior.
- Overraters: refers to children whose self-perceptions are higher than other-perceptions. Please note that this term is not meant to imply that others' ratings are viewed as more accurate.
- Self-perceptions: refers to children's perceptions of their social acceptance, academic competence, behavioral conduct, peer-victimization, and bullying behavior.
- Self-other discrepancy: refers to disagreement between self- and other-perceptions. One may *overrate* or *underrate* one's competence, peer victimization or bullying behavior relative to other-perceptions.

- Self-reported emotions: refers to depression, anxiety, anger, and global self-worth.
- Social acceptance: perceptions regarding the degree to which a child is accepted by his or her peers.
- Standardized difference scores: used as the indicator of self-other discrepancies. These scores were created by converting informants' ratings into z-scores by classroom then subtracting teacher- and peer-ratings from self-ratings.
- Underraters: refers to children whose self-perceptions are lower than other-perceptions. Please note that this term is not meant to imply that others' ratings are viewed as more accurate.
- Victimization: perceptions regarding the degree to which a child is the victim of negative physical and verbal actions from peers.

## Chapter 2: Literature Review

This chapter begins with a review of the main conceptualizations of the self-concept construct. The chapter then contains four sections that review the literature regarding: (a) the relationships among self-perceptions, (b) the relationships between self-perceptions and self-reported emotions, (c) the congruence of self- and other-perceptions, and (d) the relationship between discrepancies of self- and other-perceptions and self-reported emotions. Each section ends with a summary and any specific hypotheses that were made based on the reviewed literature.

### *Conceptualizations of the Self-Concept Construct*

Attempts to conceptualize and adequately define self-concept have a long history. William James' (1890, 1892) framework remains the classic psychological analysis of the self (Damon & Hart, 1988). As stated in Chapter 1, James put forth the distinction between the I-self, or the knower, and the Me-self, or the known. The Me-self is a definable collection of characteristics within an individual that can be verbalized. Elements of the Me-self, according to James, include material characteristics (body, possessions), social characteristics (relations, roles, personality), and spiritual characteristics (consciousness, thoughts, psychological mechanisms) that together create a unique configuration of personal attributes. James asserted that these elements are hierarchically organized with, "the bodily me at the bottom, the spiritual me at the top, and the extra-corporal material selves and the various social selves in between" (1892; p.54).

James (1890, 1892) presented the I-self as “self-as-knower.” This is the aspect of self that initiates, organizes and interprets experience in a subjective manner. The individual is aware of the I-self in four ways: agency over life events, uniqueness of one’s experience, personal continuity, and reflection of one’s own awareness. While the inclusion of the I-self in Jamesian theory makes his account of the self comprehensive, James felt that the I-self should not be examined empirically because of its elusive nature. Attempting to characterize a phenomenon that is subjective and that one is only partially conscious of would likely vary from moment-to-moment. For this reason, James felt that inquiry of the I-self is best left to philosophy or religion and that psychologists interested in self-concept should focus on the Me-self (Epstein, 1973). Although recent research has begun to identify unique outcomes of the experiencing self compared to the verbalized self (Damon & Hart, 1988; Schimmack & Diener, 2003; Shimizu & Pelham, 2004), the current study focuses only on the Me-self.

Following James, theorists such as James Mark Baldwin (1897), Charles Horton Cooley (1902) and George Herbert Mead (1934) emphasized the important role social interaction plays in the development of the self. For these symbolic interactionists, the self is primarily a social construction that develops through linguistic exchanges, or symbolic interactions, with others. Harter (1999) pointed out several common themes among the theories of these original symbolic interactionists. First, beginning in early childhood, a child engages in the imitation of significant others’ behaviors, attitudes, values and standards. Second, a child adjusts his or her behavior to gain the approval of significant others. Third, a child comes to adopt the opinions that significant others are

perceived to hold toward the self and these appraisals come to define one's sense of self as a person.

For Baldwin (1897), the most important social process in self-development is imitation. This is particularly true during early childhood where imitation is most prevalent. The family provides the initial models for imitation, then as the child gains more contact with others (e.g., teachers, peers) the sphere of influence widens. Cooley (1902) placed less emphasis on imitation and instead focused on the incorporation of opinions significant others hold about the self. Cooley proposed a now famous metaphorical representation of this process. Now simply referred to as the looking-glass-self, he observed in the following couplet that:

Each to each a looking glass  
Reflects the other that doth pass

For Cooley (1902), significant others create a social mirror that an individual gazes into in order to detect others' opinions toward the self. These reflected appraisals are then internalized as "self-ideas" that are comprised of three components: (a) the imagination of our appearance to the other person, (b) the imagination of that person's judgment of that appearance, and (c) the emotional reaction to these reflected appraisals. Of particular importance in this process are the emotions of pride and shame since they are "not merely a mechanical reflection of ourselves, but an imputed sentiment, the imagined effect of this reflection upon another's mind" (p. 153). Once internalized, it is important to note that these components are not necessarily attributed toward the initial social sources. It also is important to note the implications Cooley's theory has on global self-worth compared to Jamesian theory. For James, global self-worth results from a



cognitive process where an individual compares particular aspirations to perceived successes in corresponding domains. For Cooley, an individual's self-worth is a social process that reflects others' perceived evaluations of the self; although a mature sense of self is more stable in light of transient or disparate views of significant others. Mead (1934) elaborated on Cooley's looking-glass-self with an even greater emphasis on the role of social interaction.

Similar to Jamesian theory, contemporary models of the self, such as Susan Harter's model (1999) and the Shavelson/Marsh/Byrne (SMB) model (Byrne & Worth Gavin, 1996; Marsh et al., 1998), also divide an individual's self-concept into discrete parts. There is, however, a difference of opinion regarding whether or not the various dimensions are ordered hierarchically. For instance, while the SMB model proposed a hierarchal structure to the self, Harter claimed that the I-self in its role of constructor of the Me-self does not, at least in childhood, possess the capacity to create a hierarchically organized system because children are not yet able to do so cognitively. According to Harter, the self is both a cognitive and social construction, and the cognitive component is particularly important for the development of the structure of the self-system, or how the self-representations are conceptually organized. Cognitive development impacts the level of differentiation and integration of various dimensions of an individual's self-theory. Regarding differentiation, cognitive abilities allow an individual to create self-evaluations that differ across various domains of experience. Regarding integration, cognitive abilities allow the individual to construct higher-order generalizations about the self in the form of trait labels (e.g., a high degree of skill in math, science and language arts are subsumed under the label "smart"). Despite the difference of opinion among

theorists on the presence of a hierarchical structure, the measurement instruments that have evolved from these two models are the most widely used in research and tap dimensions only at the Me-self level.

Markus and Wurf (1987) define self-concept as a collection of knowledge structures about the self called self-schemas or self-representations that help individuals set goals, monitor progress, and change behavior. However, not all self-representations can be accessed at the same time. Conscious awareness of a portion of the self is activated according to the situation the individual is in and is further influenced by the individual's current motivational state, such as self-enhancement, self-consistency, or self-actualization. Therefore, situational factors and an individual's self-motives together bring forth a particular set of representations Markus and Wurf refer to as the working self-concept. The working self-concept, in turn, influences intrapersonal processes and interpersonal processes.

Intrapersonal processes that are influenced by an individual's working self-concept include information processing, emotional regulation and motivation (Markus & Wurf, 1987). For instance, self-congruent stimuli receive a higher rate of attention, are more efficiently processed, and show enhanced recall and recognition when compared to incongruent information, which is often rejected. Regulation of emotion is also an important function of self-concept according to this model. Individuals, who typically strive to create and maintain a positive emotional state, lean toward self-enhancing information such as selective social comparisons or selective interpretations of events. Furthermore, motivation is often influenced by an individual's aspirations toward

possible selves and desired selves, which in turn, mediate behavior and set behavioral standards.

Interpersonal processes influenced by an individual's working self-concept include social perception, social comparison, and social interaction (Markus & Wurf, 1987). Research has shown that people often focus on personality dimensions that are personally relevant, and tend to see others as similar to themselves except in cases when the individual has a committed self-definition, a high need for uniqueness, or are motivated by self-enhancement. Self-conceptions also influence choice of personal relationships. For example, there is evidence that relationship satisfaction is related to partners validating each other's desired selves (Schlenker, 1984; as cited in Markus & Wurf). In addition, reaction to feedback is associated with a person's self-concept, particularly when it comes to seeking out and attending to confirmatory feedback.

Markus and Wurf's (1987) model is appealing for several reasons. First, it integrates the relationship emotion has on self-concept, which in turn, influences behavior. Second, the active, dynamic self that is proposed provides an explanation for how experience has the ability to continually shape self-concept. Here, an individual's possible selves serve as incentives for behavior, as well as provide a means for self-evaluation and interpretation of the current self. Viewing self-concept in this manner allows for a stable set of core beliefs, yet explains the malleable impact of the working self-concept. Third, the model seems more complete than other contemporary models of the self since it describes how the I-self and Me-self may interact. Unfortunately, since current self-concept measurement instruments are geared at examining the Me-self, this model is really a construct looking for a practical measurement instrument. While the

current study focused exclusively on the Me-self, the Markus and Wurf model is included in this discussion to underscore the likelihood that more complex interactions of the self exist than are typically examined in this line of research.

### *Relationships among Self-Perceptions*

*Perceptions of Competence.* The Self-Perception Profile for Children (SPPC; Harter, 1985a), a revision of the Perceived Competence Scale for Children (Harter, 1979; 1982), is designed to tap children's domain-specific judgments of their competence as well as their global self-worth, Harter's term for self-esteem. The SPPC is one of the most widely used instruments in the study of self-perceptions and taps six dimensions. The current study utilized four of the six SPPC scales: (a) social acceptance, the degree to which the child feels accepted by peers or is popular; (b) academic competence, the child's perception of his or her ability within the realm of scholastic performance; (c) behavioral conduct, the degree to which the child does the right thing and likes the way he or she behaves; and (d) global self-worth (often referred to as self-esteem), an overall judgment of one's worth as a person. Having an independent scale that measures self-esteem, versus measuring self-esteem as an average of the other self-concept dimensions included in the instrument, highlights Harter's belief that self-esteem is a separate construct that needs to be tapped directly. The remaining scales in the SPPC, physical appearance and physical abilities, were not included in the current data set.

It is important to gain an understanding of the average values of self-perceptions and the relationships among self-perceptions that have been demonstrated in previous research in order to establish a point of comparison with which to examine data in the current study. Since the SPPC (Harter, 1985a) was used in the current study, this section

focuses on findings related to that specific measure (see Table 2). In addition, when possible, this review focused on younger elementary school children since the current study examined self-perceptions of second- and third-grade children. It is important to note that little research has utilized the SPPC with second-grade children as it was originally designed for children in third- through eighth-grade. Instead, Harter and Pike (1984) created a pictorial scale for children four through eight years of age. This issue is discussed further in Chapter 3.

Table 2

*Average Values and Standard Deviations in Past Research that Utilized the Self-Perception Profile for Children (Harter, 1985a)*

Author	Sample	Social Acceptance		Academic Competence		Behavioral Conduct		Global Self-Worth	
		<i>Girls</i>	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>	<i>Girls</i>	<i>Boys</i>
Harter (1985a) Sample 1	60 third-graders from Colorado; around 90% White	2.80 (.84)	2.87 (.73)	2.80 (.86)	2.87 (.80)	3.16 (.58)	3.14 (.63)	3.01 (.85)	3.14 (.70)
Harter (1985a) Sample 2	73 third-graders from Colorado; around 90% White	2.71 (.60)	2.65 (.61)	2.77 (.70)	2.63 (.73)	2.80 (.54)	2.86 (.72)	2.76 (.56)	2.82 (.76)
Cole, Maxwell, and Martin (1997)	434 third-graders from the Midwest; 65.9% White, 30.1% African American	2.95 (.80)	3.01 (.73)	3.12 (.70)	3.17 (.66)	3.31 (.66)	3.20 (.63)	n/a	n/a

Table 2 (continued)

Author	Sample	Social Acceptance		Academic Competence		Behavioral Conduct		Global Self-Worth	
Muris, Meesters, and Fijen (2002)	1,143 children from the Netherlands; 8-14 years of age; over 90% White	2.98 (.62)	3.03 (.62)	2.70 (.58)	2.85 (.58)	2.98 (.48)	2.83 (.50)	3.17 (.58)	3.30 (.53)
Austin and Joseph (1996)	425 children from Northern Ireland; 8-11 years of age (mean = 9.2)	2.71 (.60)		2.59 (.61)		2.86 (.51)		2.88 (.60)	
Mynard and Joseph (1997)	179 children from England; 8-13 years of age (mean = 10.7, SD 1.5)	2.87 (.67)		3.05 (.66)		3.05 (.42)		2.88 (.67)	
Andreou (2001)	408 children from Central Greece; 9-12 years of age (mean = 10.7)	2.91		2.52		2.97		2.93	
Welborn Thill et al. (2003)	68 children from the Midwest; Mean age = 8.49; 91% White	3.01 (.62)		3.17 (.58)		3.09 (.54)		n/a	

Table 2 (continued)

Author	Sample	Social Acceptance		Academic Competence		Behavioral Conduct		Global Self-Worth	
		<i>Af.Am.</i>	<i>White</i>	<i>Af.Am.</i>	<i>White</i>	<i>Af.Am.</i>	<i>White</i>	<i>Af.Am.</i>	<i>White</i>
Schumann et al. (1999)	2,379 females (1,213 African American, 1,166 White) from across the United States	2.92 (.68)	2.91 (.69)	2.87 (.67)	2.98 (.66)	3.00 (.64)	3.13 (.58)	3.15 (.64)	3.16 (.60)

*Notes:* Average value out of 4. Higher values represent more positive self-perceptions. Standard deviations, when reported, are in parentheses.

Harter (1985a) did not find gender differences in the SPPC scales for the two samples of third-grade children highlighted in Table 2, but when samples of third-through sixth-grade children were combined, boys reported a lower level of behavioral conduct compared to girls (mean 2.89 compared to 3.22;  $p < .001$ ). Harter did not find any other gender differences for the remaining SPPC scales included in the current study. Cole (1991a) and Cole, Maxwell, and Martin (1997) also did not find gender differences across the SPPC scales. In contrast, Muris et al. (2002) reported gender differences on the social acceptance, academic competence, behavioral conduct, and global self-worth scales. This is not surprising perhaps, despite the similar means to the other studies shown in Table 2, given the large sample size that existed in that study ( $N = 1,143$ ).

The Schumann et al. (1999) study that is highlighted in Table 2 is noteworthy since it is the only study located by this author that examined the psychometric properties of the SPPC in a diverse sample of children. Schumann and colleagues administered the

SPPC in 1,213 African American and 1,166 White girls recruited from Virginia, California, Ohio, and Washington, DC. While there was little variation in the means and standard deviations across the two groups, the internal consistency of the SPPC scales was lower in the African American group (range 0.63 to 0.67) compared to the White group (range 0.72 to 0.79). Similar to results found by Schumann et al., Magnus, Cowen, Wyman, Fagan, and Work (1999) found little variation in SPPC scale means across a sample of African American and White children. No studies were found that examined the psychometric properties of the SPPC with other minority populations, though two studies that focused on Latino children found that the Self-Description Questionnaire-1 (Marsh, 1988; as examined by Kamiski, Shafer, Neumann, & Ramos, 2005) and the Multidimensional Self-Concept Scale (Bracken, 1992; as examined by Tansy, 1996) measured children's self-concepts in a manner consistent with the instruments' manuals.

Several relationships among the SPPC scales are noteworthy (see Table 3). Harter (1985a) reported that academic competence tends to be strongly related to behavioral conduct across all age groups, indicating that children who feel they are good in academics also feel they are well behaved. In addition, some researchers have presented evidence that social acceptance is the most strongly related dimension to global self-worth, where others argue that physical appearance is the most strongly related dimension to global self-worth. For instance, Harter reported correlations above .60 for perceived physical appearance and global self-worth for all age groups, and between .45 and .60 for perceived social acceptance and global self-worth. Boivin, Vitaro, and Gagnon (1992) and Li (1988) reported the same pattern but argued that physical appearance and global self-worth were so strongly correlated because the items on these two SPPC scales are worded



similarly. Additional research demonstrated a stronger relationship between social acceptance and global self-worth than between physical appearance and global self-worth (Hoge & McScheffrey, 1991; Marsh & MacDonald Holmes, 1990). After reviewing the literature that utilized a variety of self-concept measurement instruments, Berndt and Burgy (1996) concluded that perceived social acceptance and global self-worth are the most highly related facets of the self.

Table 3

*Intercorrelations of Scales within the Self-Perception Profile for Children (Harter, 1985a)*

Subscale	1	2	3	4	5	6
1. Academic Competence	—	.34 .44	.52 .35	.48 .38	.45 .58	.61 .64
2. Social Acceptance		—	.45 .53	.51 .37	.29 .41	.58 .56
3. Athletic Competence			—	.50 .34	.28 .25	.52 .45
4. Physical Appearance				—	.38 .25	.73 .72
5. Behavioral Conduct					—	.57 .50
6. Global Self-worth						—

*Note.* The top number in each cell represents correlations for one sample of combined third- and fourth-graders ( $N = 117$ ); the bottom number in each cell represents correlations for a second sample of combined third- and fourth-graders ( $N = 133$ ).

*Perceptions of Peer Victimization and Bullying Behavior.* Two additional scales measuring self-perceptions of victimization and bullying behavior are included in the current study. The Peer Victimization Scale (Neary & Joseph, 1994) is a six-item instrument that taps the degree to which a child feels he or she is a victim of negative physical or verbal actions. The Bullying Behavior Scale (Austin & Joseph, 1996) is a six-item instrument that taps the degree to which a child perpetrates negative physical and verbal actions. Both scales were designed to be integrated into the SPPC (Harter, 1985a).

Using the Peer Victimization Scale, Neary and Joseph (1994) tested the prediction that self-perceived victims, compared to children who did not perceive themselves as victims, would report lower competence. The participants were 60 Irish schoolgirls between 10 and 12 years of age. Results of the study supported the authors' hypothesis. Children who perceived themselves as victims, compared to children who did not perceive themselves as victims, reported lower competence across all SPPC scales (Harter, 1985a), with the exception of athletic competence. A subsequent study conducted by Callaghan and Joseph (1995), which included 120 children (63 boys, 57 girls) between 10-12 years old from two schools in Northern Ireland, replicated the findings that self-perceived victims, compared to children who did not view themselves as victims, had lower self-perceived competence.

Austin and Joseph (1996) developed a six-item scale to assess self-perceived bullying behavior. The Bullying Behavior Scale was developed by changing the tense of the items on the Peer Victimization Scale (Neary & Joseph, 1994) from passive to active (e.g., "Some children are often picked on by other children" was changed to "Some children often pick on other children"). The authors used the new scale to compare self-

perceptions of bullying behavior to other self-perceptions measured by the Peer Victimization Scale and the SPPC (Harter, 1985a). Participants in the study were 425 schoolchildren (204 boys, 221 girls) between 8 and 11 years of age (mean=9.2) from five schools in Merseyside, England. There were no gender differences on the Peer Victimization Scale, but boys scored higher than girls on the Bullying Behavior Scale. For both boys and girls, higher scores on the Peer Victimization Scale negatively correlated with scores on all the SPPC scales. For both boys and girls, higher scores on the Bullying Behavior Scale negatively correlated with all the SPPC scales except athletic competence and physical appearance.

A follow-up study conducted by Mynard and Joseph (1997) found no gender differences on the Peer Victimization Scale or the Bullying Behavior Scale (Austin & Joseph, 1996) for 75 boys and 104 girls (ages 8-13; mean=10.7) from Warwickshire (UK). Similar to previous studies that utilized the Peer Victimization Scale, higher victimization scores were associated with lower scores on all six of the SPPC scales (Harter, 1985a). In agreement with Austin and Joseph, higher scores on the Bullying Behavior Scale were associated with lower scores on all SPPC scales except athletic competence and physical appearance.

Two studies were conducted by Andreou (2000, 2001) with elementary school children in Greece that utilized the SPPC (Harter, 1985a), the Peer Victimization Scale (Neary & Joseph, 1994), and the Bullying Behavior Scale (Austin & Joseph, 1996). Both studies replicated previous findings pertaining to the relationships among self-perceptions of competence, peer victimization, and bullying behavior. Higher scores on the Peer Victimization Scale were associated with lower scores on all SPPC scales, and higher

scores on the Bullying Behavior Scale were associated with lower scores on all SPPC scales except athletic competence and physical appearance. Neither study found gender differences for the Peer Victimization Scale. Andreou (2000) did not find gender differences on the Bullying Behavior Scale, although like Austin and Joseph (1996), Andreou (2001) found that boys scored higher than girls on the Bullying Behavior Scale.

*Summary.* Past research has demonstrated that the various dimensions of self are significantly related to one another. Self-perceptions of competence (social acceptance, academic competence, behavioral conduct) have been shown to positively relate to one another, and self-perceptions of peer victimization and bullying behavior have been shown to negatively relate to self-perceptions of competence. One goal of the current study was to further examine how self-perceptions relate to each other across the following dimensions: (a) social acceptance, (b) academic competence, (c) behavioral conduct, (d) peer victimization, and (e) bullying behavior. This preliminary analysis provided a descriptive overview of the current data, and served as a point of comparison to past studies that have utilized the same or similar measures. This analysis also offered an opportunity to examine relationships among these variables in an ethnically diverse sample of children. Based on previous research, two specific hypotheses were made:

*Hypothesis 1.* Self-perceptions of social acceptance, academic competence, and behavioral conduct will positively relate to one another.

*Hypothesis 2.* Self-perceptions of victimization and bullying behavior will negatively relate to self-perceptions of social acceptance, academic competence, and behavioral conduct.

### *Relationships between Self-Perceptions and Self-Reported Emotions*

In the current study, children's self-reported emotions were measured using the Children's Depression Inventory - Short Form (Kovacs, 1999), the Multidimensional Anxiety Scale for Children -10 Item (March, 1997), and the Children's Inventory of Anger (Nelson & Finch, 2000). Global self-worth (Harter, 1985a), which as previously mentioned is an assessment of one's overall value as a person, was also used as an indicator of self-reported emotion since it contains such a strong affective component. Harter (1993) stated that global self-worth, depression, and feelings of hopelessness are so strongly correlated with one another, in fact, that they cannot be distinguished from one another. A series of studies with children and adolescents conducted by Harter has consistently shown a .7 to .8 correlation between global self-worth and depression. In light of this strong association, Harter and Marold's (1994) model examined a Depression Composite, comprised of global self-worth, depression, and general hopelessness. Anger also has been significantly related to depression. For instance, 80% of a sample of middle school adolescents reported that depression represents a mixture of sadness and anger (Renouf & Harter, 1990). While the current study looked at depression, anxiety, anger, and global self-worth separately, it is important to be cognizant of the strong connections among the affect variables.

*Perceptions of Competence and Affect.* McGrath and Repetti (2002) examined the relationship between depressive symptoms and self-perceptions in a longitudinal study that followed 248 children (132 boys, 116 girls; approximately 81% White) from fourth- through sixth-grades. Using the SPPC (Harter, 1985a), and the CDI (Kovacs, 1992), they found that self-reported depression was a strong predictor of more negative

self-perceptions (academic competence, social acceptance, and global self-worth) over time. Parent- and teacher-reported depression showed a similar pattern with self-reported academic competence and social acceptance, though the relationships between these variables were not as strong as the relationships between self-reported depression and self-reported competence.

Muris and colleagues (2003) also examined associations between children's SPPC responses and various measures of pathology. Participants were 1,143 children (543 boys, 611 girls), ranging from 8-14 years of age (mean = 11.2, SD = 1.0), who were recruited from six primary schools and one secondary school in the southern part of the Netherlands. The study utilized three self-reported measures: (a) the State-Trait Anxiety Inventory for Children (STAIC; Spielberger, 1973), (b) the Spence Children's Anxiety Scale (SCAS; Spence, 1998), and (c) the Depression Questionnaire for Children (DVK; De Wit, 1987). The study also included the Internalizing and Externalizing composites from the Child Behavior Checklist-Parent Version (CBCL; Achenbach & Edelbrock, 1983). Table 4 contains correlations, corrected for age and gender, between the SPPC scales and measures of pathology.

Table 4

*Correlations between Self-Concept Dimensions and Measures of Pathology (Muris, Meesters, & Fijen, 2003)*

Dimension	STAIC	SCAS	DVK	CBCL-int	CBCL-ext
Academic	-.44*	-.44*	-.52*	-.07	-.17*
Social	-.51*	-.55*	-.46*	-.20*	-.20*
Athletic	-.43*	-.41*	-.32*	-.09	.10
Physical	-.46*	-.39*	-.60*	-.14	-.22*
Behavior	-.30*	-.28*	-.40*	-.05	-.20*
Self-worth	-.56*	-.51*	-.67*	-.22*	-.30*

*Notes.* Self-rated: STAIC = State-Trait Anxiety Inventory for Children, SCAS = Spence Children's Anxiety Scale, and DVK = Depression Questionnaire for Children. Parent-rated: CBCL-int and CBCL-ext refer to the Internalizing and Externalizing composites of the Child Behavior Checklist-Parent Version. \*  $p$  at least  $< .05$ .

Results of Muris et al. (2003) provide evidence that lower self-perceived competence and global self-worth are related to higher self-reported anxiety and depression. Similar to the findings of McGrath and Repetti (2002), higher parent-reported internalizing and externalizing behavior significantly correlated with lower self-reported competence, though the connections were not as strong as the connections between the self-reported measures of pathology and self-reported competence. It is interesting to note that Cole (1991b) found significant negative correlations between peer-reported competence and self-reported depression across five competence domains (social

acceptance, behavioral conduct, academic competence, physical appearance, and athletic competence). Taken together, these findings indicate that others' perceptions of competence still may be valuable in predicting self-reported emotions, even if the correlations across informants are not as strong as the correlations within informants. Muris and colleagues concluded that the stronger relationship between self-reported competence and self-reported psychopathological symptoms was found because both reports are reflections of internal states that are not readily observed by others, and therefore, are best assessed by children themselves. This argument makes intuitive sense, but ignores the likelihood that the stronger relationship between self-reported competence and self-reported emotions also was a function of shared method variance since both reports came from the same informant (Hawker & Boulton, 2000). This issue is discussed further in the next section.

*Perceptions of Peer Victimization, Bullying Behavior, and Affect.* Social status has been shown to differentially relate to affective self-ratings. Juvonen et al. (2000) pointed out that past research has linked self-reported victimization to higher self-blaming attributions, depression, anxiety, and loneliness, and lower global self-worth. O'Moore and Kirkham (2001) studied this issue using data from a nationwide sample of 8,249 school children from Ireland between 8 and 18 years of age. Results showed significantly lower self-esteem for self-reported victims compared to those who did not report being victims. Previous research using the measures included in the current study echo these findings. Self-reported victimization has been consistently related to higher self-reported depression and to lower global self-worth (Austin & Joseph, 1996; Callaghan and Joseph; 1995; Neary & Joseph, 1994). Grills and Ollendick (2002) also



found a negative correlation between self-reported victimization and global self-worth, as well as a positive correlation between self-reported victimization and self-reported anxiety.

One concern across studies that rely on self-report for both the victimization and adjustment measures is how large of a role shared method variance played in the findings. Hawker and Boulton (2000) conducted a meta-analysis of studies between 1978 and 1997 that examined the role of shared method variance in the link between peer victimization and psychosocial adjustment. Shared method variance studies were defined as those that contained both self-reported victimization and self-reported adjustment variables. Non-shared method variance studies were defined as studies where victimization was reported by one informant and psychosocial adjustment was reported by a separate informant. Results of the meta-analysis showed that victimization was positively associated with depression for studies with and without shared variance, though the effect sizes were smaller when shared method variance was avoided (same rater:  $r = .45$ ; different raters:  $r = .29$ ). Victims were also more anxious compared to non-victims independent of shared method variance (same rater:  $r = .25$ ; different raters:  $r = .21$ ). In addition, victimization was correlated with low self-esteem across studies independent of shared method variance (same rater:  $r = .39$ ; different raters:  $r = .21$ ). Taken together, these results suggest that victimization is most strongly related to depression, followed by global self-worth, and then anxiety. This pattern was similar whether studies relied exclusively on self-reports, or whether they relied on a combination of self- and other-reports.

Self-reported bullying behavior has been consistently correlated with lower global self-worth (Andreou, 2000, 2001; Juvonen et al., 2000; Mynard & Joseph, 1997; O'Moore

& Kirkham, 2001). Andreou (2001) also found that higher self-reported bullying behavior was associated with higher internalizing coping behavior, as measured by the Self-Report Coping Measure (SRCM; Causey & Dubow, 1992), though it is important to note that other studies have not found a consistent link between bullying behavior and depression or anxiety (Austin & Joseph, 1996; Craig, 1998). In addition, for boys, higher self-reported bullying behavior correlated with higher self-reported externalizing coping behavior, as measured by the SRCM.

Most research examining the links between victimization, bullying behavior, and self-reported emotions have focused on global self-worth, and to a lesser extent, depression and anxiety. The current study also included a measure of self-reported anger. There is paucity of information regarding how self-reported anger is related to self-perceptions, although as previously mentioned one study found that higher self-reported bullying behavior was associated with higher self-reported externalizing behavior (Andreou, 2001), an arguably related construct. One study that looked specifically at anger found that peer-identified bullies and victims, compared to their nonidentified peers, reported more anger in response to verbally presented stories that contained an unpleasant peer interaction (Camodeca & Goossens, 2005). Given these findings, it was possible in the current study that self-reported bullying behavior and victimization would be related to higher self-reported anger scores. Due to the lack of previous research in this area, however, the analyses involving anger in the current study should be viewed as exploratory. Therefore, formal hypotheses regarding the links between victimization, bullying behavior and self-reported emotions focused only on depression, anxiety, and global self-worth.

It is important to note that previous research has demonstrated even poorer psychosocial adjustment for bully-victims, or children who both bully and are victimized, compared to bullies or victims (for a review of this literature see Schwartz, Proctor, & Chein, 2001). Bully-victims, according to Olweus (2001), represent only a small portion of the victim group (10-20%). Given the relatively small sample size in the current study, bully-victims were not examined.

*Summary.* Past research has demonstrated that self-perceptions are significantly related to emotional functioning. Specifically, self-perceptions of competence have been shown to negatively relate to depression and anxiety, and positively relate to global self-worth. Self-perceived victimization has been shown to positively relate to depression and anxiety. Self-perceived victimization and bullying behavior both have been shown to negatively relate to global self-worth. Little research has been done examining how children's self-perceptions are related to self-reported anger. In addition, previous studies have typically looked at the relationships between self-perceptions and only one self-reported emotion. One goal of the study, therefore, was to conduct a preliminary analysis of the data that simultaneously examined how self-perceptions related to a wider array of self-reported emotions, namely depression, anxiety, global self-worth, and anger. Based on previous research, one hypothesis was made:

*Hypothesis 3.* Children who report lower competence and higher victimization will report higher depression and anxiety scores, and lower global self-worth scores. Children who report higher bullying behavior will report lower global self-worth scores.

### *Congruence between Self-Perceptions and Other-Perceptions*

The study of congruence between self- and other-perceptions in self-concept research has a long and often controversial history. One of the issues related to this line of research is determining which reporters' ratings are "accurate." Berndt and Burgy (1996) argued that it is difficult to determine to what extent self-ratings reflect perceptions of actual social functioning and to what extent they are influenced by self-enhancing tendencies. In addition, other raters (e.g., parents, teachers, peers) are subject to their own biases and may not be privy to all of the information an individual uses to form self-perceptions (Ladd & Kochenderfer-Ladd, 2003). The feedback individuals receive from others also may be limited or distorted due to norms of politeness. Using Cooley's metaphor, Berndt and Burgy stated that, "most people see themselves in a looking glass that provides a dim, blurred, and selective reflection" (p.199).

De Los Reyes and Prinstein (2004) stated that neither self- nor other-reports should be considered the "gold standard." Instead, each reporter may have access to unique information regarding an individual's competence and adjustment. Self-reports provide information on subjective experiences, where others' reports provide information on social reputation (Juvonen, Nishina, & Graham, 2001). Since both self-reported and other-reported information appears to provide unique information, the terms "accurate" or "inaccurate" self-perceptions are not appropriate when measuring whether self-appraisals agree or disagree with others' appraisals. Therefore, the phrases "congruence of self-other perceptions" and "discrepancies between self- and other-perceptions" were used throughout the current study. The term "congruent raters" refers to children whose self-perceptions were in agreement with other-perceptions. The term "overraters" refers

to children whose self-perceptions were higher than other-perceptions. The term “underraters” refers to children whose self-perceptions were lower than other-perceptions. These terms have been used in similar studies that have examined self- and other-perceptions in children (Cole, Martin, Peeke, Seroczynski, & Hoffman, 1998; Connell & Ilardi, 1987). In the adult literature, the terms “positive illusions” and “negative illusions” are typically used (Robins & Beer, 2001; Taylor & Brown, 1988).

Previous research has shown that young children tend to have overrate their competence relative to other-perceptions during early elementary school years (Edens, 1999). According to Harter (1990, 1996), young children’s relatively positive self-judgments reflect an age appropriate distortion of their wish to be competent. Another reason young children tend to overrate their competence relative to others’ ratings is that they are developmentally unable to fully utilize social comparison information in their self-evaluations. By the age of eight, however, children’s self-appraisals begin to more closely reflect others’ evaluations of them (Harter, 1999; Marsh et al., 1998). Mean levels of self-reported competence tend to decline and become more consistent during this time period (Harter, 1998). Linked to the decline of mean levels of competence is that agreement between self-reports and other-reports increases throughout early childhood and adolescence. The process that allows for a higher degree of congruence between self- and other-perceptions is likely a combination of increasing age and life experience. This experience leads children to reflect on their relative strengths and weaknesses so that their self-concepts become more differentiated and more highly correlated with external indicators (Marsh & Craven, 1991; Wigfield et al., 1997). In addition, the increased

cognitive ability that develops during childhood allows for deeper self-reflection and an increased use of social comparison as a means for self-evaluation.

While congruence of self-other perceptions increases in elementary school years, there is still considerable discrepancy between self- and other-perceptions (Cole, Jacquez, & Maschman, 2001). Self-verification theory (Swann, 1987; Swann & Hill, 1982) provides one explanation for why this occurs. Self-verification theory states that individuals will resist changes to their self-concepts, and therefore, will attend mainly to confirmatory evidence linked to their existing self-views. In other words, overraters would attend more to positive feedback, and underraters would attend more to negative feedback. Mezulis et al. (2004) conducted a meta-analysis of 266 studies that supports this viewpoint. Across the studies, Mezulis and colleagues found an average effect size of 0.96 for self-serving attributional bias, or the tendency of individuals to make attributions for positive events that are more internal, stable, and global than their attributions for negative events. Gresham, Lane, MacMillian, Bocian, and Ward (2000), on the other hand, stated that it is not yet clear in the literature whether or not relatively positive self-views are present due to self-enhancement theories, or because those with relatively positive self-views are simply more oblivious to environmental feedback.

*Self-Other Perceptions of Competence.* Herbert Marsh and colleagues performed a collection of studies that examined congruence of self-other perceptions using the Self-Description Questionnaire (SDQ; Marsh, 1988, 1990). The SDQ contains eight scales: reading, math, school, physical ability, appearance, peer relations, parent relations, and self-esteem. Using items contained in the SDQ, Marsh and colleagues created inferred self-concept ratings by asking raters to make judgments based on how they think the

individual views himself or herself. Eight previous studies using this method demonstrated significant agreement between elementary school teacher and student responses to the SDQ (mean  $r = .30$ ; Marsh, 1990). Agreement was strongest when teachers could directly and more objectively observe the children's behavior (math  $r = .37$ ; reading  $r = .37$ ; school  $r = .33$ ; physical ability  $r = .38$ ; peer relations  $r = .29$ ; parents  $r = .17$ ; and physical appearance  $r = .16$ ).

Marsh and Craven (1991), extended this line of research to compare inferred self-concept ratings from teachers, mothers, and fathers with preadolescents' self-concept ratings. Participants were 188 predominantly middle-class children from a suburb of metropolitan Sydney, Australia in third- through sixth-grades. Congruence between self-mother ratings and self-father ratings were slightly stronger than congruence between self-teacher ratings. As in previous studies, all three self-other comparison groups were more similar in directly observable dimensions (academic competence and physical ability). Regarding dimensions included in the current study, child and teacher ratings were significantly correlated for school functioning ( $r = .62$ ) and peer relations ( $r = .46$ ).

Marsh and colleagues (1998) examined congruence of self-teacher perceptions for 396 kindergarten through second-grade children from a metropolitan region of Sydney, Australia. Like previously discussed research by Marsh and colleagues, teachers inferred students' self-concepts using a summary item from each of the eight scales contained in the SDQ (Marsh, 1988). Students completed the full SDQ. Similar to Marsh and Craven (1991), child- and teacher-ratings were significantly correlated for peer relations ( $r = .14$ ) and for school ( $r = .13$ ). However, note that the correlations are lower for this age group than they were in Marsh and Craven, which focused on third- through sixth-grade

children. This finding provides support for the theory that children's self-concepts become more aligned with others' views as they progress through middle childhood (Harter, 1998), though it is also possible that adults have more difficulty inferring what younger children think about themselves.

Cole (1991a) explored congruence between self-, teacher-, and peer-perceptions across self-concept dimensions. Participants were 360 children from 18 fourth-grade classrooms across seven schools in a mid-size, Midwestern city. The sample was racially heterogeneous (6.7 % Asian American, 30.3% African American, 58.1% White, 3.9% Hispanic, and 1.1% other). Self-perceptions of competence were assessed using the SPPC (Harter, 1985a). Peer-perceptions of competence were assessed using the Peer Nomination Measure of Competence (Cole & Carpentieri, 1990), which contains five variables that parallel the competence dimensions included in the SPPC. For example, to assess peer-perceptions of social competence, children nominated up to three peers in their class they liked best, and three children in their class they liked least. Each child obtained two scores: the number of most-liked nominations and the number of least-liked nominations. The least-liked score was subtracted from the most-liked score to create an overall social preference score. Similar index scores were constructed for the remaining peer-reported competence variables. A set of five rating scales, one for each competence dimension, was also administered to teachers. For example, to evaluate social acceptance, teachers rated students using a seven-point scale ranging from "extremely unpopular" to "liked by almost everybody." Results of the study indicate greater congruence between teacher-peer perceptions compared to self-teacher or self-peer perceptions across all five competence dimensions (see Table 5).



Table 5

*Correlations between Self, Peer, and Teacher Ratings (Cole, 1991a)*

Dimension	Self-Teacher	Self-Peer	Teacher-Peer
Academic	.35	.45	.50
Social	.24	.39	.52
Athletic	.32	.30	.44
Physical	.21	.22	.31
Behavioral	.34	.28	.51

*Note:* All correlations were significant at the  $p < .001$  level.

Discrepancies between self- and peer-perceptions of social acceptance also have been linked to teacher-rated competence and behavior problems. Gresham and colleagues (2000), in a sample of 428 third-grade children in Southern CA, found that children who overrated their social acceptance relative to peer-report had more teacher-reported behavior problems and poorer social skills and academic competence than did congruent raters or underraters. Children who underrated their social acceptance relative to peer-report did not differ from congruent raters on the same teacher-reported indexes.

*Self-Other Perceptions of Peer Victimization and Bullying Behavior.* Previous research suggests that perceptions of victimization often vary depending on whether victims are identified through self-report or through peer-report. Correlation coefficients between self- and peer-reported victimization typically range from .2 to .4, which indicates that at most the two measures share only 16% of the variance (Juvonen et al., 2001). Two studies that included a measure of peer-nominated victimization along with a

self-nominated measure of victimization found that more children identified themselves as victims than were nominated by peers (Graham, Bellmore, & Juvonen, 2003; Graham & Juvonen, 1998). De Los Reyes and Prinstein (2004) pointed out that this is not surprising since others rarely have access to all peer victimization encounters so they are likely to underestimate the degree to which an individual experiences victimization.

In addition, there is evidence that self-identified versus other-identified victimization differentially link to perceptions of competency. As previously mentioned, studies that utilized the Peer Victimization Scale (Neary & Joseph, 1994) have consistently found that children who report higher victimization report lower competence (Andreou, 2000, 2001; Austin & Joseph, 1996). Conversely, Graham and Juvonen (1998) found that peer-nominated victimization did not relate to self-perceptions of social acceptance, but rather to peer-perceptions of social acceptance. In a follow-up study, Graham and colleagues (2003) found that teacher-reported social outcomes closely mirrored peer-reported social outcomes for peer-identified victims. However, teacher-reported social outcomes were not related to children who self-identified as victims but were not seen as victims by their peers. The authors concluded that peer-rated victimization is related not to how youths perceive themselves, but rather to their public image.

Regarding bullying behavior, there is support in the literature that peer-identified aggressive children report relatively positive self-concepts compared to others' appraisals of them (Edens, 1999; Hymel, Bowker, & Woody, 1993; Patterson, Kupersmidt & Griesler, 1990; Rubin, Chen, & Hymel, 1993). Johnson and Lewis (1999) speculated that bullies may have relatively positive self-concepts because they are unaware of or do not

care about the effect their behavior has on others, and therefore, their self-perceptions are not affected. Patterson and colleagues asserted that the tendency for aggressive children to overrate their competence relative to others' reports may act as a defense against a more painful reality of having low competence in these areas. Still another perspective is that aggressive children are receiving positive feedback, often from other aggressive peers, that allow them to maintain a more positive image of themselves than would be expected (Cairns, Cairns, Neckerman, Gest, & Gariépy, 1988; Olweus, 2001).

Not all evidence points to aggressive children having positive self-concepts. As previously reviewed, studies that utilized the Bullying Behavior Scale (Austin & Joseph, 1996) found that children who report higher bullying behavior tend to report lower competence (Andreou, 2000, 2001; Mynard & Joseph, 1997). Unfortunately, those studies did not examine whether bullies overrated or underrated their competence relative to other-perceptions. The controversy regarding whether or not aggressive children have relatively positive self-concepts may be due to methodological differences in the previously mentioned studies. Most studies that have found a positive link between aggression and self-perceptions utilized others' reports of aggressive behavior. Most studies that have found a negative link between aggression and self-perceptions utilized self-reports of aggressive behavior (for an exception see Johnson & Lewis, 1999).

*Summary:* Previous research suggests that teacher- and peer-perceptions of competence are more strongly related to each other than to self-perceptions of competence. There also is evidence that the congruence of self-other perceptions is strongest for more objectively evaluated competencies, such as academic competence or physical ability. In addition, other-perceptions of victimization have been shown to more

strongly relate to other-perceptions of competence, where self-perceptions of victimization have been shown to more strongly relate to self-perceptions of competence. There is contradictory evidence regarding the self-perceptions of bullies. Children who are identified as aggressive by others tend to report relatively positive self-concepts, where children who self-identify aggressive behavior tend to report relatively negative self-concepts. None of reviewed studies examined the relationship between all of the dimensions included in the current study. The first research question in the current study, therefore, examined congruence of self-other perceptions across the various self-concept dimensions and across pairs of raters. Linked to this question, the study assessed whether self- and other-perceptions of victimization and bullying behavior differentially predict self- and other-perceptions of competence. Based on previous research, two hypotheses were made:

*Hypothesis 4.* There will be greater congruence between teacher-peer perceptions than between self-teacher or self-peer perceptions.

*Hypothesis 5.* Self-perceptions of victimization and bullying behavior, compared to other-perceptions, will more strongly predict self-perceptions of competence. Other-perceptions of victimization and bullying behavior, compared to self-perceptions, will more strongly predict other-perceptions of competence.

#### *Discrepancies between Self-Other Perceptions and Self-Reported Emotions*

There is controversy in the literature regarding whether or not inflated self-perceptions relative to other-perceptions have positive effects for individuals. There is some evidence in the adult literature that having a relatively positive self-concept is

adaptive in the short-term, yet maladaptive in the long-term (Colvin, Block, & Funder, 1995; Robins & Beer, 2001). Having an inflated self-concept may be maladaptive since it often leads individuals to pursue goals that are beyond their capabilities, may lead to an exaggerated sense of control whereby people blame themselves for negative outcomes that were not truly within their control (Brown, 1990), and may prevent people from striving to improve upon their weaknesses (Robins & Beer).

Another vein of this research argues that having inflated self-perceptions relative to other-perceptions is emotionally healthier than having congruent or deflated self-perceptions relative to other-perceptions since having inflated self-perceptions may motivate an individual to strive toward the positive image (Taylor & Brown, 1988; Taylor, Lerner, Sherman, Sage, & McDowell, 2003). Proponents of the adaptive nature of inflated self-perceptions point out that their opponents, who often are in the fields of psychiatry and clinical psychology, assert that the capacity to view one's competence realistically is an essential requirement for effective functioning (Brown, 1990). However, Asendorpf and Ostendorf (1998), pointed out that this assertion may be related to the propensity of psychiatrists and clinical psychologists to study abnormal behavior, and argued that the fact that mental illness is sometimes characterized by distortions of the self does not necessarily mean that mental health is characterized by the absence of distortion. In fact, the portrait that emerges in the social psychology literature is that non-identified populations of adults consistently bias their self-perceptions in a self-enhancing direction and that a lack of self-enhancement is related to increased depression and anxiety and lower self-esteem (for a review of this literature see Brown, 1990).

It is unclear based on past research the impact overrating or underrating oneself relative to other-perceptions has on *children's* emotional functioning. The second research question of the current study, therefore, examined whether discrepancies between self- and other-perceptions of competence, peer victimization and bullying behavior were meaningfully related to self-reported emotions.

*Self-Other Perceptions of Competence and Affect.* Connell and Iardi (1987) examined how children's self-esteem and other self-system processes related to discrepancies between self- and teacher-perceptions of academic competence. Participants were 121 fourth- through sixth-grade children from a suburban elementary school. Child ratings included academic competence, global self-worth (SPPC; Harter, 1985a), and anxiety amplification, defined as self-denigration and worrying about the consequences of failure. Teachers rated children's academic competence using the teacher-version of the SPPC, and global self-worth using a scale based on the SPPC that was constructed for the study.

Congruence of self- and other-perceptions was assessed in Connell and Iardi (1987) by regressing children's ratings of academic competence on teacher's ratings of academic competence. The resulting standardized residuals were then split into three groups: "overraters" (top third of the residuals), "congruent raters" (middle third of the residuals), and "underraters" (bottom third of the residuals). Children who underrated their academic competence, compared to congruent raters and underraters, reported higher school-related anxiety and lower global self-worth. In addition, results replicated a previous finding by Harter (1985b) that overraters, compared to underraters, reported lower school-related anxiety and higher global self-worth. However, when level of self-

rated academic competence was statistically controlled, the differences favoring overraters disappeared, and in fact, overraters reported more anxiety in the face of perceived failure than did underraters. The authors concluded that if a child is generally self-confident, then overrating may not be psychologically problematic, whereas a child with moderate to low perceived competence may overrate as a defensive, anxiety-driven attempt to maintain a higher self-esteem. These findings support the argument that variations among self- and other-reported competence are not merely methodological flaws, but rather are legitimate avenues for exploring children's functioning. These findings also provide evidence that simultaneously examining self-perceptions and discrepancies of self-other perceptions may provide important information regarding self-reported emotions that would be missed if these variables were examined independently.

The richest collection of research examining the impact congruence of self-other perceptions of competence has on self-reported emotions in children was conducted by Cole and colleagues (Cole et al., 2001; Cole, Martin, Peeke, Seroczynski, & Frier, 1999; Cole et al., 1998; Hoffman, Cole, Martin, Tram, & Seroczynski, 2000). This series of studies was carried out in the Midwest with children and adolescents. Self-report instruments across studies included the SPPC (Harter, 1985a), the Children's Depression Inventory (Kovacs, 1982), and the Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985). Peer-reports of competence were measured using the Peer Nomination Measure of Competence (Cole & Carpentieri, 1990). Teacher-reports of competence were assessed using a set of five rating scales designed to mirror the SPPC dimensions.

Cole and colleagues (1998) explored the relationship between congruence of self-, teacher-, and peer-perceptions of competence and self-reported depression in a sample of 1,459 children and adolescents. Two cohorts of third- and sixth-grade children were followed over a three-year period. The study demonstrated moderate cross-informant correlations between self- and other-perceptions (median social acceptance  $r = .38$ ; median academic competence  $r = .47$ ; median behavioral conduct  $r = .39$ ). Results of the study also showed that self-reported depression predicted children's tendency to underestimate their competence relative to teacher- and peer-perceptions. Linked to this finding, McGrath and Repetti (2002) compared self-reported academic competence with grades, and self-reported social acceptance with teacher-reported peer problems, and found that higher self-reported depression was a strong predictor for children to underrate their academic and social functioning relative to other-perceptions.

In a follow-up study using the same data set described in Cole et al. (1998), Cole and colleagues (1999) reported that children who underrated their academic competence relative to teacher-perceptions reported higher depression and anxiety scores. In addition, the study examined gender differences, which were relatively small until middle school when girls were more likely to underrate their academic competence, and boys were more likely to overrate their academic competence. Girls in middle school also reported higher depression and anxiety scores compared to boys. However, when initial levels of self-reported depression and anxiety were controlled, most of the gender differences in academic overrating and underrating were eliminated. The authors concluded that underrating and overrating academic competence is more a function of individual differences in depression and anxiety, and less of a function of gender per se.



Hoffman and colleagues (2000) replicated the Cole et al. (1999) findings regarding depression and academic competence. In addition, Hoffman and colleagues examined congruence of self-other perceptions of behavioral conduct and social acceptance. Results of the study suggest that negative views of ones' competence across dimensions, justified or not, are positively related to self-reported depression. The authors concluded that whether self-perceptions are congruent with other-perceptions is irrelevant. Negative self-appraisals predispose children to report more depressive symptoms whether such appraisals agree or disagree with others' appraisals.

Brendgen, Vitaro, Turgeon, Poulin and Wanner (2004) examined links between congruence of self-other perceptions of social acceptance and depression. Participants included 1,887 fourth- through sixth-grade children in Montréal, CA (80% Caucasian). Children rated their social acceptance using the SPPC (Harter, 1985a), and self-reported depression using the CDI (Kovacs, 1992). Peers rated social acceptance using peer nominations of likability. In line with the positive illusion model proposed by Taylor and Brown (1988), results of the study showed that children who overrated their social acceptance relative to other-perceptions had increased social standing and decreased depression scores six months after the original data were collected. In addition, in line with previously reviewed literature, underrating ones' social acceptance relative to other-perceptions predicted increased depression scores over a six month period.

*Self-Other Perceptions of Peer Victimization, Bullying Behavior, and Affect.*

Little research has been conducted on the relationship between congruence of self-other perceptions of peer victimization and bullying behavior with affective functioning. In fact, this researcher was unable to locate any studies that examined this relationship for

bullying behavior. Because of this, no predictions were made in the current study regarding the relationship between self-other perceptions of bullying behavior and self-reported emotions, though exploratory analyses in this area were conducted.

Several studies that examined the relationship between congruence of self-other perceptions of victimization and self-reported emotions were located. Graham and Juvonen (1998) separated approximately 400 sixth- and seventh-grade children into four groups based on the relationship between self- and peer-reported victimization: self-perceived victims (overraters), peer-identified victims (underraters), true victims (self- and peer-nominated victims), and non-victims. Results showed that peer-identified victims and true victims were more rejected and less accepted by their peers. Negative self-reported adjustment (lower global self-worth scores and higher anxiety scores) were better predicted by self-perceived victim scores, rather than the other groups' scores.

Graham and colleagues (2003) further explored findings from Graham and Juvonen (1998) using a larger sample ( $N = 785$ ) of sixth-grade children. Self-perceptions in the study included global self-worth (SPPC; Harter, 1985a), peer victimization (Peer Victimization Scale; Neary & Joseph, 1994), social anxiety (Social Anxiety Scale for Adolescents; LaGreca & Lopez, 1998), and depression (CDI-S; Kovacs, 1999). The study also assessed peer-perceptions of victimization, acceptance, and rejection, as well as teacher-perceptions of internalizing behavior, externalizing behavior, and popularity (Interpersonal Competence Scale; Cairns, Leung, Gest, & Cairns, 1995). Participants were separated into the same four groups used in Graham and Juvonen: true victims, self-identified victims, peer-identified victims, and non-victims. True victims, compared to non-victims, reported lower global self-worth scores and higher self-reported depression

and anxiety scores. Self-identified victims (overraters) were similar to true victims in terms of global self-worth and self-reported depression and anxiety. However, peer-identified victims (underraters) did not report experiencing more negative emotions compared to their non-victimized counterparts. Regarding peer-reported social adjustment, true victims and peer-identified victims were less accepted and more rejected by peers than their non-identified counterparts, where self-identified victims were just as well-liked by their peers as non-victims. Teacher-reports closely aligned with peer-reports. Teachers judged peer-identified victims as poorly as true victims, and judged self-identified victims as favorably as non-victims. The authors concluded that self- and other-reports provide unique, complimentary information that can be used to more fully understand an individual's psychological and social functioning.

De Los Reyes and Prinstein (2004) measured self-reported and peer-reported victimization, as well as self-reported depression and peer-reported aggression in 203 tenth-grade adolescents in New England (79% Caucasian, 9.5 % African-American, 4.1% Hispanic, and 9.5% other). Results showed that higher self-reported depression was related to adolescents' overestimation of victimization, where higher peer-reported aggression was related to adolescents' underestimation of victimization. The authors concluded that the findings are consistent with self-enhancement theories (e.g., Mezulis et al., 2004; Swann, 1987; Swann & Hill, 1982) in that depressed individuals were more likely to encode negatively valanced interpersonal cues.

*Summary:* The second research question in the current study examined whether discrepancies between self- and other-perceptions of competence, peer victimization, and bullying behavior were meaningfully related to self-reported emotions. Current literature

regarding this topic suggests that children who underrate their competence or overrate their victimization relative to other-perceptions report higher depression and anxiety and lower global self-worth compared to congruent raters and overraters. There is evidence that the opposite pattern is true for children who overrate their competence relative to other-perceptions. It is important to note, however, that when Connell and Ilardi (1987) controlled for level of self-reported academic competence, overraters actually reported more anxiety in the face of perceived failure than did underraters. This suggests that there are different outcomes related to level of self-report independent of self-other discrepancies. In addition, Hoffman and colleagues (2000) found that negative views of oneself were nearly equally related to depression whether they were discrepant from or commensurate with others' appraisals. The current study examined the relative impact of self-perceptions and self-other discrepancies on self-reported emotions, but did not take self-perceptions into account when making predictions since virtually all of the studies in this line of research did not examine whether self-perceptions moderated the impact of self-other discrepancies on self-reported emotions. Based on previous research, two hypotheses were made:

*Hypothesis 6:* Children who underrate their competence relative to other-perceptions will report higher depression and anxiety scores, and lower global self-worth scores. The opposite pattern will be found for children who overrate their competence relative to other-perceptions.

*Hypothesis 7:* Children who overrate their victimization relative to other-perceptions will report higher depression and anxiety scores, and lower global self-worth scores.

## Chapter 3: Research Methodology

The current study utilized archival data to examine self-perceptions, teacher-perceptions, and peer-perceptions of competence, peer victimization, and bullying behavior as they relate to self-reported emotions. Hypotheses were tested within the framework of four questions. Two preliminary questions examined how self-perceptions were related to one another and to self-reported emotions. The first research question examined congruence between self-perceptions and other-perceptions. The second research question examined the relative impact of self-perceptions and discrepancies between self-other perceptions on self-reported emotions.

### *Participants*

Data for the study were collected during the spring of 2003 from one suburban elementary school located in the Washington D.C. metropolitan area. Participants were 99 second- and third-grade students from six classrooms (three second-grade classrooms = 56.6% of the sample; three third-grade classrooms = 43.4% of the sample). Across classrooms, 58.6% of participants were male, and 41.4% of participants were female. As classified by the school system, 66.7% of the participants were African American, 17.2% were Hispanic, 11.1% were Asian American, and 5.1% were White. Twenty-eight percent of the participants were receiving English for Speakers of Other Languages (ESOL) services at the time of the study. Four percent of the participants were receiving special education services at the time of the study. During the 2002-2003 school year, 48.3% of the students in the school received free or reduced lunch.

### Data Collection

Six female school psychology doctoral students, including this author, participated in data collection. Each doctoral student included measures in the study linked to her individual research. The main research questions for the current study were determined prior to data collection. The research project was approved by the Institutional Review Board at the University of Maryland and by the public school system where the data were collected.

The first step in the data collection process was to obtain parental consent. A letter regarding the study was sent to all parents across the six classrooms. Parents were asked to sign and return an informed consent form indicating whether or not they wished their child to participate in the study. Seventy-six percent of the parents across both grades agreed to their child's participation (71.3% second-grade, 82.0% third-grade). When children returned the informed consent form to school, regardless of whether or not parental consent had been granted, children were allowed to choose an item from a prize bag. The prize bag contained items purchased at the Dollar Store. In addition, informed consent was obtained from all children who had received parental permission using an assent form with developmentally appropriate language. All children were informed that they could change their mind and return to their classrooms at any time.

Each of the six classroom teachers received a packet that contained the teacher-rated measures included in the study. When needed, the six doctoral students who participated in data collection provided classroom coverage so teachers had uninterrupted time to complete the packets. Student data were collected through one-on-one interviews conducted by the six doctoral students. Each child was interviewed for approximately one

hour on two separate occasions. The interviewer was the same for both interviews. In order to combat the potential threat to internal validity of having six separate data collectors, all interviewers recited a standard introduction to the interviews, and administered measures in the same order, using the same procedures. In addition, all interviewers wrote down children's responses verbatim and audiotaped the interviews for verification purposes.

Many of the instruments used in the student interviews were questionnaires. While most of the questionnaires could have been filled out directly by the children, all items were read aloud to participants to control for potential reading difficulties. This was particularly important given the large number of non-native English speakers included in the sample.

Care was taken to maintain the confidentiality of the data. All interview data was kept in 8 ½ by 11 envelopes, which are now housed in a locked cabinet at the University of Maryland, College Park. Subject numbers rather than subject names were placed on all measurement instruments included in the student interviews. Teachers were asked to keep their data packets in a locked drawer when they were not working on them. Once teachers completed their packets, subject numbers replaced subject names on the forms.

### Measures

Self-perceptions, peer-perceptions, and teacher-perceptions of competence, peer victimization, and bullying behavior were assessed using a variety of measures (see Table 6 for an overview and the Appendix for a list of items). To help control for the nested structure of the data, all self-perceptions, teacher-perceptions, and peer-perceptions were standardized by classroom.

Table 6

*Scales Used for Self-Other Comparisons in the Current Study*

<i>Dimension</i>	<i>Self-Rating</i>	<i>Teacher-Rating</i>	<i>Peer-Rating</i>
Social Acceptance	Social Acceptance Scale (Self-Perception Profile for Children; SPPC; Harter, 1985a)	Withdrawal Scale (Behavioral Assessment System for Children-Teacher Rating Scales; BASC-TRS; Reynolds & Kamphaus, 1992)	Peer-rated social acceptance was assessed through peer nominations of likeability
Academic Competence	Academic Competence Scale (SPPC; Harter, 1985a)	Learning Problems Scale (BASC-TRS; Reynolds & Kamphaus, 1992)	Not included in current data set
Behavioral Conduct	Behavioral Conduct Scale (SPPC; Harter, 1985a)	Externalizing Problems Composite (BASC- TRS; Reynolds & Kamphaus, 1992)	Not included in current data set
Peer Victimization	Peer Victimization Scale (Neary & Joseph, 1994)	Adapted from a teacher nomination measure used by Perry, Kusel, and Perry (1988)	Adapted from the Peer Nomination Inventory (Perry, Kusel, & Perry, 1988)
Bullying Behavior	Bullying Behavior Scale (Austin & Joseph, 1996)	Adapted from the Teacher Rating Scale (Dodge & Coie, 1987)	Overt Aggression Scale (Crick & Werner, 1998)



*Self-Reported Measures.* Self-perceived competence (social acceptance, academic competence, and behavioral conduct) was measured using the Self-Perception Profile for Children (SPPC; Harter, 1985a). Self-reported peer victimization and bullying behavior were measured using two scales designed by Neary and Joseph (1994) and Austin and Joseph (1996) to be integrated into the SPPC.

The SPPC (Harter, 1985a) is a measure of self-perceived competence designed for elementary school and preadolescent children. Four scales were used in the current study: (a) social acceptance, the degree to which a child is accepted by peers or feels popular; (b) academic competence, a child's perception of his or her ability within the realm of scholastic performance; (c) behavioral conduct, the degree to which a child likes the way he or she behaves, acts the way he or she is supposed to, and avoids getting into trouble; and (d) global self-worth, a more general assessment regarding the extent to which a child likes himself or herself as a person and is happy with his or her life. In the current study, global self-worth was examined in the context of other self-reported emotions in light of past research that showed that global self-worth is largely an affective dimension (Harter, 1999). Each scale contains six items, which were counterbalanced throughout the questionnaire. Each item was presented in an alternate format designed to control for socially desirable responding (see Figure 1). Responses were scored on a scale of one to four (1 = low perceptions of competence, 4 = high perceptions of competence). Scores from the six items within each dimension were averaged to create composite scores.

Figure 1

*Format of the Self-Perception Profile for Children (Harter, 1985a)*

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Instructions: This question talks about two kinds of kids, and we want to know which kids are most like *you*.

(1) So, what I want you to decide first is whether you are more like the kids on the left side who *often forget what they learn*, or whether you are more like the kids on the right side *who remember things easily*.

(2) Now, the second thing I want you to think about, now that you have decided which kind of kids are most like you, is to decide whether that is only *sort of true for you*, or *really true for you*.

Really True For me	Sort of True For me	Some kids often forget what they learn	BUT	Other kids remember things easily	Sort of True for me	Really True for me
<input type="checkbox"/> <sub>1</sub>	<input type="checkbox"/> <sub>2</sub>				<input type="checkbox"/> <sub>3</sub>	<input type="checkbox"/> <sub>4</sub>

---

Harter (1985a) reported acceptable internal consistency, based on Cronbach's alpha, for the four SPPC scales included in the current study: academic competence  $\alpha = .82$ ; social acceptance  $\alpha = .78$ ; behavioral conduct  $\alpha = .74$ ; global self-worth  $\alpha = .80$ . Independent studies have demonstrated similar alpha coefficients among the scales. For instance, Marsh and MacDonald Holmes (1990) found alpha coefficients ranging from .81 to .86 in a sample of fifth-grade students ( $n = 290$ ) from greater metropolitan Sydney, Australia. Hymel, LeMare, Ditner, and Woody (1999) found alpha coefficients ranging from .78 to .84 in a sample of fifth-through sixth-grade students ( $n = 217$ ) from Southern Ontario, Canada. Muris et al. (2003) found alpha coefficients ranging from .73 to .80 in a

sample of 1,143 children from The Netherlands (mean age = 11.2; range 8-14 years of age). Another study conducted in Ottawa, Canada suggests that the internal consistency of the SPPC scales increases with age: Byrne and Schneider (1988) found alpha coefficients ranging from .72 to .80 in a sample of fifth-grade students ( $n = 129$ ), and alpha coefficients ranging from .82 to .88 in a sample of eighth-grade students ( $n = 113$ ). In addition, reliability estimates of the scales may be linked to the diversity of the sample. Recall from Chapter 2 that Schumann et al. (1999) found weaker internal consistencies on the SPPC for a sample of African American girls compared to a sample of White girls.

According to the SPPC manual (Harter, 1985a) factor analyses revealed a strong factor pattern among the subscales with no cross loadings greater than .18 for the fifth-through eighth-grade samples. Several independent studies also have found distinct factor patterns among the scales in samples of fifth-through eighth-grade children (Byrne & Schneider, 1988; Marsh & MacDonald Holmes, 1990; Muris et al., 2003). The factor patterns for the two third- through fourth-grade samples discussed in the SPPC manual were not as clear cut. In the first sample, academic competence and social acceptance were best represented by one factor rather than distinct factors. In the second sample, scholastic competence and behavioral conduct were best represented by one factor rather than distinct factors. Harter interpreted these results as a byproduct of the educational philosophy espoused by each school. The first school placed more emphasis on academic competence and its link to peer acceptance, where the second school placed more emphasis on behavioral conduct within the classroom and its link to academic success. Harter cautions that differentiation among the scales may vary from sample to sample in younger populations based on environmental influences.

A potential complication in using the SPPC in the current study was that Harter (1985a) contended the measure should not be used with children under the age of eight, which applied to many of the second-grade participants. Harter felt the SPPC was not appropriate for children under the age of eight because younger children do not yet have adequate reading ability, knowledge of trait labels, or a consolidated concept of self-worth. Instead, a pictorial self-concept instrument called the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (PSPCSA; Harter & Pike, 1984) was designed for children between the ages of four and seven. The PSPCSA is individually administered and does not include a measure of global self-worth.

Other theorists disagree with Harter and have found that the self-concepts of children in early elementary school years are already differentiated and include a reliable self-esteem component (Marsh et al., 1998). Marsh and his colleagues were able to determine this by utilizing a new administration procedure for the Self-Description Questionnaire-1 (Marsh, 1988) with children between the ages of five and eight. Instead of using the traditional paper-and-pencil format, a group of undergraduate interviewers conducted one-on-one interviews with the students.

The current study measured self-concept using the SPPC, but utilized individual interviews as suggested by Marsh and colleagues (1998). There are several reasons for this approach. First, the format of the SPPC better controls for socially desirable responding by presenting both positive and negative characteristics in a manner that makes either choice acceptable. Second, using Harter's measures as they were designed would mean using the PSPCSA for the second-grade participants and the SPPC for the third-grade participants. Third, the SPPC includes a behavioral conduct subscale and a

measure of global self-worth, which were both highly relevant to the questions posed by the study. Fourth, Marsh and his colleagues have criticized Harter's pictorial approach with younger children for being more confusing than verbal presentation alone.

Self-perceptions of victimization and bullying were measured using the Peer Victimization Scale (Neary & Joseph, 1994) and the Bullying Behavior Scale (Austin & Joseph, 1996). These six-item scales were designed to be immersed in a counterbalanced fashion within the SPPC (Harter, 1985a). The Peer Victimization Scale consists of six forced choice items, three of which refer to being the victim of negative physical actions (hit and pushed, picked on, bullied) and three of which refer to being the victim of negative verbal actions (teased, called mean names, laughed at). The authors reported acceptable internal consistency (Cronbach's  $\alpha = .83$ ) for the scale. In addition, students who said that they were bullied scored significantly higher on the Peer Victimization Scale providing evidence for the concurrent validity of the measure. A subsequent study conducted by Callaghan and Joseph (1995) replicated Neary and Joseph's findings.

The Bullying Behavior Scale developed by Austin and Joseph (1996) is based on the Peer Victimization Scale (Neary & Joseph, 1994) and involved changing the tense of each item from passive to active. The Bullying Behavior Scale, therefore, consists of six forced choice items, three of which refer to being the perpetrator of negative physical actions (hit and push, pick on, bully) and three of which refer to being the perpetrator of negative verbal actions (tease, call mean names, laugh at). The authors reported that both scales demonstrate strong internal consistency, as measured by Cronbach's  $\alpha$  (Bullying Behavior Scale  $\alpha = 0.83$ , Peer Victimization Scale  $\alpha = 0.82$ ).

Following the format used by Austin and Joseph (1996), the current study inserted the peer victimization and bullying behavior items within the SPPC so that the first item on the Peer Victimization Scale was the third item on the combined questionnaire, and the first item on the Bullying Behavior Scale was the sixth item on the combined questionnaire. Subsequent victimization and bullying items were inserted every sixth item. Responses were scored on a scale of one to four (1 = low perceptions of peer victimization and bullying behavior, 4 = high perceptions of peer victimization and bullying behavior), and then were averaged within each dimension to create composite scores.

*Teacher-Reported Measures.* Two scales and one composite from the Behavioral Assessment System for Children: Teacher Rating Scales (BASC-TRS; Reynolds & Kamphaus, 1992) were used to assess teacher-perceptions of competence. A teacher nomination measure used by Perry, Kusel, and Perry (1988) was adapted to create a teacher-rated victimization scale. The Teacher Rating Scale (Dodge & Coie, 1987) was adapted to create a teacher-rated bullying behavior scale.

The BASC-TRS (Reynolds & Kamphaus, 1992) is a widely used standardized rating system designed to assess teacher-perceptions of children's behavior. Two scales and one composite from the BASC-TRS were used in the current study to assess teacher-perceptions of competence: (a) the withdrawal scale, which taps the tendency to avoid social contact, be chosen last by other children for games, and have difficulty making new friends; (b) the learning problems scale, which taps the presence of academic difficulties, particularly in understanding or completing school work; and (c) the externalizing problems composite, which is based on the combined *t*- scores of the

conduct problems, aggression, and hyperactivity scales and is characterized by disruptive behavior, sometimes referred to as “undercontrolled” behavior.

The BASC-TRS (Reynolds & Kamphaus, 1992) was normed using 2,401 teacher-reports of a nationally representative sample of children. According to the test manual, the BASC-TRS scales and composite that were used in the current study demonstrate strong internal consistency: withdrawal scale  $\alpha = .80$  for ages 6-7, and  $\alpha = .79$  for ages 8-11; learning problems scale  $\alpha = .84$  for ages 6-7, and  $\alpha = .90$  for ages 8-11; externalizing problems composite  $\alpha = .93$  for ages 6-7, and  $\alpha = .95$  for ages 8-11. The scales and composite also demonstrate acceptable test-retest reliability within an interval of two to eight weeks between ratings (withdrawal scale  $r = .79$ , learning problems scale  $r = .93$ , and externalizing problems composite  $r = .91$ ), and acceptable interrater reliability (withdrawal scale  $r = .64$ , learning problems scale  $r = .93$ , and externalizing problems composite  $r = .79$ ). Validity for the BASC-TRS was reported in the manual in terms of its factor structure, correlations with other instruments, and ability to distinguish between children with and without particular clinical diagnoses.

All BASC-TRS (Reynolds & Kamphaus, 1992) items are rated on a scale of one to four (1 = the behavior *never* occurs, 4 = the behavior *almost always* occurs). Items grouped by scales and composites are reported in the form of T-scores ( $M = 50$ ,  $SD = 10$ ). Higher T-scores on the three dimensions included in the current study, as calculated by the BASC-TRS manual, indicate greater difficulty within each dimension. In order to correspond with self- and peer-reported competence in the current study, the BASC-TRS T-scores were reversed so that higher scores indicated more competence, and lower scores indicated less competence. For the remainder of the study, the withdrawal scale is

referred to as teacher-rated social acceptance, the learning problems scale is referred to as teacher-rated academic competence, and the externalizing problems composite is referred to as teacher-rated behavioral conduct.

Five items were used to create a teacher-rated victimization scale. Three of the five items were adapted from a teacher nomination measure used by Perry et al. (1988) to assess overt victimization, such as being made fun of or repeatedly harassed. The authors did not report psychometric properties of the teacher nomination measure, but reported that it significantly correlated with peer-rated victimization,  $r(163) = .62$ . Two additional items were included in the scale for the current study that measure relational victimization, such as being excluded from the group. A preliminary scale analysis demonstrated acceptable internal consistency for the revised scale ( $\alpha = .76$ ). Teachers rated children on a scale of one to five (1 = *never*, 5 = *almost always*), to indicate how frequently each statement applied to a particular child. Responses to the five items were summed to create an overall score.

Teacher-rated bullying behavior was assessed using an adaptation of the Teacher Rating Scale (Dodge & Coie, 1987). Dodge and Coie generated 12 statements to describe various types of aggressive behavior, including proactive aggression, reactive aggression, and nonspecific aggression. The current study utilized the three items that comprise the proactive aggression scale (uses physical force to dominate, gets others to gang up on peers, and threatens and bullies others), and included an additional three nonspecific aggression items (teases and name calls, starts fights with peers, gets into verbal arguments). The additional items were included in the scale so that teacher-rated bullying would align more closely with the self- and peer-rated bullying scales that were used in



the current study as they both included a physical bullying and a verbal bullying component (see the Appendix for a comparison of items). Since the teacher-rated bullying scale used in the current study was adapted from the Dodge and Coie measure, there is no reliability information to directly compare it to. However, the intrascale item correlations for the three items contained in the original proactive aggression scale were .79, .77, and .77, and the internal consistency of the proactive aggression scale, as measured by alpha coefficient, was .91. Psychometric properties for the nonspecific aggression items were not reported by Dodge and Coie. A preliminary scale analysis in the current study found an alpha coefficient of .69 for the original proactive aggression scale, and an alpha coefficient of .82 for the newly developed scale. Teachers rated each item on a scale of one to five, ranging from *never* to *almost always*, to indicate how frequently the statement applied to a particular child. Responses on the six items were summed to create an overall score.

*Peer-Reported Measures.* During individually administered interviews, all children participated in a sociometric procedure to gauge peer-perceptions of social acceptance, peer victimization, and bullying behavior. The sociometric procedure was administered in accordance with the ethical guidelines recommended by Bell-Dolan and Wessler (1994), including individual administration and discussion of confidentiality.

Peer-perceptions of social acceptance are commonly assessed by having children rate their peers' likeability (Crothers & Levinson, 2004; Dodge, Coie, Pettit, & Price, 1990; Hess & Atkins, 1998). In the current study, each student was shown a photocopied layout of his or her classroom that included the first and last name of every classmate. As each classmate's name was read aloud, children were asked to consider the classmate and

state whether they liked that peer “a lot,” “a little,” or “the least.” The interviewer tracked students’ responses on a grid created for the study. Average liked scores were calculated for each student (“liked a lot” received a weighting of 3, “liked a little” received a weighting of 2, and “liked the least” received a weighting 1). Responses across classmates were tallied for each child, and then averaged according to how many students were in the classroom.

Six items from the Peer Nomination Inventory (Perry et al., 1988) were used to measure peer-perceptions of victimization. Children nominated classmates who were picked on, made fun of, beat up, called names, had mean things done to them, or had their feelings hurt. Perry and colleagues reported excellent internal consistency for the scale ( $\alpha = .96$ ), and excellent test-retest reliability over a three-month period ( $r = .93$ ). The peer-nominated victimization scale also significantly correlated with teacher-rated victimization,  $r(163) = .62$ , and with self-rated victimization,  $r(163) = .42$ .

The Overt Aggression Scale (Crick & Werner, 1998) was used to measure peer-perceptions of bullying behavior. Children nominated classmates who hit other kids, pushed and shoved other kids around, called other kids mean names, said mean things to other kids, or threatened to beat up other kids. Crick and Werner reported that this scale has demonstrated excellent internal consistency in previous studies ( $\alpha$  range = .94 to .97), and excellent test-retest reliability over a four-week interval ( $r = .90$ ).

In the current study, items that assessed peer-perceptions of victimization and bullying behavior were integrated into a larger sociometric measure, which also assessed prosocial behavior, relational aggression, and classroom peer support. A photocopied layout of the classroom with each classmate’s first and last name was placed in front of

the interviewee as items were read aloud. Children were allowed to nominate as many peers as they wished for each item. Nominations for each child were tallied across the victimization and bullying behavior items to create an overall score for each dimension. These scores were later standardized by classroom to mitigate the impact classroom size or composition may have had.

*Self-Reported Emotions.* Four scales were administered during the individual interviews to measure self-perceived depression, anxiety, anger, and global self-worth. The global self-worth scale (SPPC; Harter, 1985a) was discussed above in the context of the other SPPC scales.

The Children's Depression Inventory - Short Form (CDI-S; Kovacs, 1999) is a 10-item screening measure designed to assess depressive symptomatology in children. The CDI-S was developed using a backward stepwise internal reliability analysis of the 27-items contained in the full version of the CDI. Items that were retained in the CDI-S were taken from four factors of the original measure: negative mood, ineffectiveness, anhedonia (or the inability to experience pleasure from normally pleasurable life events), and negative self-esteem. The CDI was standardized on a sample of 1,266 Florida public school children in grades two through eight. Males in the standardization sample scored higher on the CDI than females. Because of this, different norms are used to score the CDI-S for males and females. According to the test manual, the CDI-S is strongly related to the full inventory ( $r = .89$ ), and its alpha coefficient is equal to .80. While the manual does not specifically address the test-retest reliability or the validity of the CDI-S, the full inventory demonstrates acceptable test-retest reliability, and acceptable validity in terms of its relationship to similar measures of depressive symptoms and its ability to

distinguish between children with and without particular clinical diagnoses. In the current study, items were read aloud to participants and they were asked to choose which of three statements within each item best described how they had been feeling for the last two weeks. Responses produced an overall depression index in the form of a T-score ( $M = 50$ ;  $SD = 10$ ).

The Multidimensional Anxiety Scale for Children - 10 Item (MASC-10; March, 1997) is a shortened version of the MASC which measures four manifestations of anxiety: physical symptoms, harm avoidance, social anxiety, and separation/panic. The MASC-10 was normed on a sample of 2,698 children between the ages of 8 and 19. Females in the standardization sample were found to score significantly higher than males. Because of this, separate norms are used to score the MASC-10 for males and females. According to the manual, the MASC-10 is strongly correlated with the MASC Total Score ( $r = .90$  for both males and females), demonstrates adequate internal consistency ( $r = .67$  for ages 8-11), and demonstrates excellent test-retest reliability over a three-month period ( $r = .83$ ). While the manual does not specifically address the validity of the MASC-10, the full inventory demonstrates validity in terms of its ability to distinguish between clinical and nonclinical respondents, and its strong relationship with the Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1978;  $r = .63$ ). In the current study, interviewers read the 10 statements aloud to participants and they were asked how often the statement was true for them (never true about me, rarely true about me, sometimes true about me, or often true about me). Responses produced an overall anxiety index in the form of a T-score ( $M = 50$ ;  $SD = 10$ ).

The Children's Inventory of Anger (ChIA; Nelson & Finch, 2000) is a 39-item screening procedure that measures anger in children. The ChIA was normed on a nationally representative sample of 1,603 children, ages 6 through 16. Males in the standardization sample scored significantly higher than females on the Total Score ( $t = 50.8$  for males,  $t = 49.2$  for females), which was used in the current study. However, since the effect size of this difference was only .16, the authors felt it should not bear a strong influence on interpretation of ChIA scores and did not create separate norms based on gender. According to the test manual, the ChIA Total Score demonstrates excellent internal consistency ( $\alpha = .95$ ), adequate test-retest reliability over a one-week interval ( $r = .75$  for ages 6-11), and validity in terms of its correlations with other measures of anger and its ability to distinguish between a subgroup of the standardization sample and children in a residential juvenile detention center. Interestingly, the authors of the test and an independent reviewer (Volpe-Johnstone, 2003) pointed out that anger as measured by the ChIA has been shown to more closely relate to depression and anxiety than to overt aggression. This may be a function of the ChIA measuring internally expressed frustration and anger and rather than externally expressed frustration and anger. In the current study, interviewers read each item aloud to participants who were then asked to rate the degree to which each statement would upset them on a four-point Likert scale: 1 = I don't care; 2 = That bothers me; 3 = I'm really angry or mad, but I think I can control myself; or 4 = I can't stand that! I'm furious! Each numerical value is associated with a pictorial representation: a smiling face, a neutral face, a scowling face, and an angry face. Responses across all 39 items were tallied and converted into a T-score ( $M = 50$ ;  $SD = 10$ ) based on the norms included in the manual.

## Chapter 4: Results

The results are presented in four major sections. First, preliminary data analyses, including distributional characteristics of the scales, internal consistencies of the scales, and correlations among the scales, are presented. Second, data on the relationship between self-perceptions and self-reported emotions are presented. Third, data on the congruence of self- and other-perceptions are presented. Fourth, data on the relative impact of self-perceptions and discrepancies between self- and other-perceptions on self-reported emotions are presented.

### Preliminary Analyses

Table 7 contains the distributional characteristics of the scales. Means and standard deviations for all self-perceptions, teacher-perceptions of social acceptance, academic competence, behavioral conduct, and self-reported emotions are similar to published norms and to previously described samples (e.g., Austin & Joseph, 1996; Harter, 1985a; Kovacs, 1999; March, 1997; Nelson & Finch, 2000; Reynolds & Kamphaus, 1992). Comparable data for the teacher-rated victimization and bullying scales and for the peer-rated victimization scale are not available as these scales were adapted from the original measures for the current study. Comparable data for the peer-rated bullying scale is not available as it was not reported by the authors of the scale (Crick & Werner, 1998). Data were screened for univariate outliers and no case was deemed to be unrepresentative of the population of interest.

Table 7

*Scale Means, Standard Deviations, Minimum Values, and Maximum Values*

Dimension	<i>M</i>	<i>SD</i>	Minimum	Maximum
Self-perceptions				
Social acceptance	2.90	0.68	1.17	4.00
Academic competence	2.88	0.72	1.00	4.00
Behavioral conduct	3.20	0.66	1.83	4.00
Peer victimization	1.96	0.80	1.00	4.00
Bullying behavior	1.51	0.57	1.00	3.17
Teacher-perceptions				
Social acceptance	53.82	7.60	20.00	61.00
Academic competence	49.43	9.66	22.00	63.00
Behavioral conduct	55.06	6.11	29.00	60.00
Peer victimization	6.71	2.15	5.00	19.00
Bullying behavior	7.64	2.52	6.00	19.00
Peer-perceptions				
Social acceptance	2.24	0.33	1.40	2.76
Peer victimization	7.42	5.10	0.00	21.00
Bullying behavior	4.31	6.11	0.00	46.00

Table 7 (continued)

Dimension	M	SD	Minimum	Maximum
Self-reported emotions				
Depression	46.97	6.90	40.00	72.00
Anxiety	53.49	10.96	30.00	79.00
Anger	45.42	9.66	28.00	70.00
Global self-worth	3.20	0.74	1.17	4.00

*Notes.*  $n = 99$  for all self-reported scales, all peer-reported scales, and teacher-reported peer victimization and bullying behavior.  $n = 98$  for the remaining teacher-reported scales.

As previously mentioned, all self-perceptions, teacher-perceptions, and peer-perceptions were standardized by classroom in order to control for the nested structure of the data. This was particularly important for the sociometric data since different sized classrooms and compositions may have affected the nomination process. Table 8 presents correlations between raw scores and scores standardized by classroom. All subsequent analyses involving self-perceptions, teacher-perceptions, and peer-perceptions utilized scores standardized by classroom. Self-reported emotions were not standardized by classroom as there were no teacher- or peer-ratings to compare self-ratings to, and because there was no reason to believe that children's emotions would be systematically impacted by the classroom they attended.



Table 8

*Correlations between Raw Scores and Scores Standardized by Classroom*

Dimension	Self-perceptions	Teacher-perceptions	Peer-perceptions
Social acceptance	.97	.84	---
Academic competence	.97	.89	---
Behavioral conduct	.92	.81	---
Peer victimization	.94	.70	.72
Bullying behavior	.95	.92	.89

*Notes.*  $n = 99$ , with the exceptions of teacher-rated social acceptance, academic competence, and behavioral conduct in which  $n = 98$ . A comparison for peer-rated social acceptance is not available as raw scores were already proportionate to classroom size. All correlations were significant at the  $p < .001$  level.

The internal consistency of the scales included in the study was assessed using Cronbach's alpha (Cronbach, 1951; see Tables 9-12). The scales contain measurement error which impacts the strength of relationships among the variables. According to Lord and Novick (1968), the observed correlation between scores is less than the correlation between the latent traits because the observed correlation is attenuated by the unreliability of the measurements. Disattenuated correlations were calculated in the current study to provide an estimate of what the correlations between variables would be without measurement error. The disattenuated correlations are presented in Tables 9-12 along with the reliability coefficients and intercorrelations not corrected for measurement error.

The reliability coefficients and intercorrelations for the self-reported competence, peer victimization and bullying behavior scales are presented in Table 9. The reliability estimates for the self-reported competence scales are lower in the current study than those reported by Harter (1985a; social acceptance  $\alpha = .78$ , academic competence  $\alpha = .82$ , behavioral conduct  $\alpha = .74$ ). The reliability estimate of the self-reported victimization scale is in line with the estimate reported by Neary and Joseph (1994;  $\alpha = .83$ ), though the reliability estimate for self-reported bullying behavior scale is somewhat lower than reported by Austin and Joseph (1996;  $\alpha = .83$ ).

As predicted in Hypothesis 1, self-perceptions of competence positively correlated with one another ( $p < .05$ ). Hypothesis 2 was partially supported. As predicted, self-perceptions of victimization and bullying behavior negatively correlated with self-perceptions of social acceptance ( $p < .01$ ) and behavioral conduct ( $p < .001$ ), though they were not meaningfully related to self-perceptions of academic competence as predicted. In addition, self-perceptions of victimization and bullying behavior positively correlated with one another ( $p < .001$ ). The disattenuated correlations within self-perceptions of competence, victimization, and bullying behavior are notably stronger than correlations not corrected for measurement error, except in the comparisons between academic competence with victimization and bullying behavior.

Table 9

*Intercorrelations and Reliability Estimates of Self-Perceptions*

Dimension	1	2	3	4	5
1. Social acceptance	(.54)	.25*	.30**	-.33**	-.26**
		.42	.50	-.50	-.43
2. Academic competence		(.66)	.22*	-.13	-.09
			.34	-.18	-.13
3. Behavioral conduct			(.66)	-.36***	-.51***
				-.50	-.76
4. Peer victimization				(.79)	.53***
					.71
5. Bullying behavior					(.70)

*Notes.*  $n = 99$ . Coefficient  $\alpha$  appears in parentheses on the diagonal. Disattenuated correlations appear in the second row of each dimension. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Reliability coefficients and intercorrelations among the teacher-reported scales are presented in Table 10. The reliability estimates for the teacher-rated academic competence and behavioral conduct scales are closely related to those reported by Reynolds and Kamphaus (1992). The reliability estimate of the teacher-rated behavioral conduct scale is somewhat lower than reported by Reynolds and Kamphaus ( $\alpha = .80$  for ages 6-7,  $\alpha = .79$  for ages 8-11). While comparable reliability estimates are not available for the teacher-rated victimization and bullying scales as they were adapted from their original measures for the current study, both scales demonstrate acceptable internal consistency.

Within teacher-perceptions, social acceptance positively correlated with academic competence and negatively correlated with victimization ( $p < .001$ ), but was not meaningfully related with behavioral conduct or bullying behavior. In addition, teacher-rated bullying behavior negatively correlated with behavioral conduct ( $p < .001$ ) and positively correlated with victimization ( $p < .05$ ). Teacher-rated victimization also negatively correlated with academic competence ( $p < .05$ ). The disattenuated correlations between teacher-ratings were generally stronger than correlations not corrected for measurement error, but show that measurement error did not greatly impact the relationships among the variables.

Table 10

*Intercorrelations and Reliability Estimates of Teacher-Perceptions*

Dimension	1	2	3	4	5
1. Social acceptance	(.71)	.43*** .54	-.17 -.21	-.44*** -.59	.06 .07
2. Academic competence		(.89)	.01 .01	-.20* -.25	-.14 -.16
3. Behavioral conduct			(.89)	-.19 -.23	-.76*** -.89
4. Peer victimization				(.76)	.22* .28
5. Bullying behavior					(.82)

*Notes.*  $n = 98$  for the social acceptance, academic competence, and behavioral conduct scales.  $n = 99$  for the victimization and bullying scales. Coefficient  $\alpha$  appears in parentheses on the diagonal. Disattenuated correlations appear in the second row of each dimension. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Reliability coefficients and intercorrelations among the peer-reported scales are presented in Table 11. Note that a reliability estimate for peer-rated social acceptance was not calculated as this variable was created using a nominally-based sociometric procedure. While directly comparable reliability estimates are not available for the peer-rated victimization scale as it was adapted from the original measure, the scale demonstrates acceptable internal consistency. The reliability estimate for the peer-rated bullying behavior scale is in line with those reported by Crick and Werner (1998;  $\alpha = .94$  to  $.97$  in past research).

Within peer-perceptions, social acceptance negatively correlated with victimization ( $p < .001$ ) and bullying behavior ( $p < .01$ ). In addition, victimization and bullying behavior positively correlated with one another ( $p < .001$ ). Correcting for error within the peer-rated scales had a minimal impact on the correlations between peer-perceptions, as can be seen by the disattenuated correlations presented in Table 11. This is not surprising since the disattenuated correlations only corrected for error within the victimization and bullying behavior scales, which both demonstrated strong internal consistency.

Table 11

*Intercorrelations and Reliability Estimates of Peer-Perceptions*

Dimension	1	2	3
1. Social acceptance	n/a	-.36*** -.40	-.33** -.34
2. Peer victimization		(.80)	.51*** .58
3. Bullying behavior			(.93)

*Notes.*  $n = 99$ . Coefficient  $\alpha$  appears in parentheses on the diagonal. Disattenuated correlations appear in the second row of each dimension. Disattenuated correlations involving social acceptance corrected for measurement error in the peer victimization and bullying behavior scales only. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Reliability coefficients and intercorrelations among the self-reported emotion scales are presented in Table 12. The reliability estimates for the self-reported anxiety, anger, and global self-worth scales are closely related to those reported by their respective manuals (Harter, 1985a; March, 1997; Nelson & Finch, 2000). The reliability estimate for self-reported depression is lower than reported by Kovacs (1999;  $\alpha = .80$ ).

Self-reported depression positively correlated with self-reported anxiety and anger ( $p < .05$ ), and negatively correlated with global self-worth ( $p < .001$ ). In addition, self-reported anger negatively correlated with global self-worth ( $p < .001$ ). The disattenuated correlations between self-reported emotions were notably stronger for correlations involving depression, which would be expected given the relatively weak internal consistency of the scale.

Table 12

*Intercorrelations and Reliability Estimates of Self-Reported Emotions*

Dimension	1	2	3	4
1. Depression	(.57)	.25* .41	.23* .32	-.55*** -.85
2. Anxiety		(.66)	.15 .20	-.13 -.19
3. Anger			(.94)	-.36*** -.43
4. Global self-worth				(.75)

*Notes.*  $n = 99$ . Coefficient  $\alpha$  appears in parentheses on the diagonal. Disattenuated correlations appear in the second row of each dimension. \* $p < .05$ . \*\*\* $p < .001$ .

### *Relationships between Self-Perceptions and Self-Reported Emotions*

This section presents results related to the second preliminary question: how are self-perceptions related to self-reported emotions? Table 13 contains correlations between self-perceptions and self-reported emotions. Global self-worth positively correlated with self-perceived competence, and negatively correlated with self-perceived victimization and bullying behavior ( $p < .01$ ). These findings support Hypothesis 3, which stated that children who report lower competence and higher victimization and bullying behavior would report lower global self-worth scores. In addition, self-reported depression negatively correlated with self-perceived academic competence and behavioral conduct, and positively correlated with self-perceived victimization and bullying behavior ( $p < .05$ ). Self-reported anxiety negatively correlated with self-perceived social acceptance, and positively correlated with self-perceived victimization ( $p < .05$ ). These findings partially support Hypothesis 3, which also stated that children who report lower competence and higher victimization would report higher depression and anxiety scores. However, self-perceived social acceptance was not significantly correlated with self-reported depression as predicted, and self-perceived academic competence and behavioral conduct were not significantly correlated with self-reported anxiety as predicted. While predictions regarding self-reported anger were not made, anger scores negatively correlated with self-perceived academic competence and behavioral conduct, and positively correlated with self-reported victimization and bullying behavior ( $p < .05$ ). Correcting for measurement error notably strengthened relationships among self-perceptions and self-reported emotions, as can be seen by the disattenuated correlations presented in Table 13.



Table 13

*Correlations between Self-Perceptions and Self-Reported Emotions*

Dimension	Depression	Anxiety	Anger	Global self-worth
Social acceptance	-.12	-.24*	-.13	.33**
	-.22	-.40	-.19	.51
Academic competence	-.25*	-.18	-.29**	.37***
	-.40	-.28	-.37	.53
Behavioral conduct	-.28**	-.16	-.25*	.42***
	-.45	-.25	-.31	.60
Peer victimization	.33**	.33**	.22*	-.35***
	.48	.46	.25	-.46
Bullying behavior	.22*	.17	.23*	-.32**
	.34	.25	.29	-.45

*Note.*  $n = 99$ . Disattenuated correlations appear in the second row of each dimension.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Four linear regression models that examined whether self-perceptions are predictive of self-reported emotions are summarized in Table 14. All four models were significant indicating that, in combination, self-perceptions were predictive of self-reported emotions. Regarding self-reported depression, self-perceptions of peer-victimization emerged as a unique predictor. Regarding self-reported anxiety, self-perceptions of victimization emerged as a unique predictor. Regarding self-reported anger, self-perceptions of academic competence emerged as a unique predictor. Regarding global self-worth, self-perceptions of academic competence and behavioral conduct emerged as unique predictors. Please note that the terms “significant” and “unique predictor” in this and all subsequent regression models refers to statistically significant findings that are at least  $p < .05$ .

Table 14

*Summary of Linear Regression Analyses for Self-Perceptions Predicting Self-Reported Emotions*

Predictor	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	$R^2$	<i>F</i>
Dependent variable = depression					.17	3.78**
Social acceptance	0.41	.74	.06	0.56		
Academic competence	-1.36	.70	-.19	-1.93		
Behavioral conduct	-1.12	.81	-.16	-1.38		
Peer victimization	1.88	.81	-.27	2.32*		
Bullying behavior	-0.04	.87	-.01	-0.05		

Table 14 (continued)

Predictor	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>R</i> <sup>2</sup>	<i>F</i>
Dependent variable = anxiety					.14	3.10*
Social acceptance	-1.40	1.19	-.12	-1.17		
Academic competence	-1.26	1.13	-.11	-1.11		
Behavioral conduct	-0.16	1.31	-.02	-0.13		
Peer victimization	3.28	1.31	.29	2.25*		
Bullying behavior	-0.43	1.40	-.04	-0.31		
Dependent variable = anger					.14	3.10*
Social acceptance	0.20	1.05	.02	0.19		
Academic competence	-2.47	1.00	-.25	-2.48*		
Behavioral conduct	-1.03	1.15	-.10	-0.90		
Peer victimization	0.97	1.15	.10	0.84		
Bullying behavior	1.10	1.23	.11	0.89		
Dependent variable = global self-worth					.31	8.38**
Social acceptance	0.09	0.07	.12	1.28		
Academic competence	0.20	0.07	.26	2.86**		
Behavioral conduct	0.19	0.08	.24	2.33*		
Peer victimization	-0.12	0.08	-.16	-1.51		
Bullying behavior	-0.04	0.09	-.06	-0.53		

Notes. *df* = 5, 93. \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

Congruence between Self-Perceptions and Other-Perceptions

This section presents results related to the first research question: how do self-perceptions of competence, peer victimization, and bullying behavior relate to teacher- and peer-perceptions along those same dimensions? Correlations between self- and other-perceptions are presented in Table 15. Self- and teacher-perceptions of academic competence, behavioral conduct, and bullying behavior positively correlated with one another ( $p < .05$ ), but self- and teacher-perceptions of social acceptance and peer victimization were not meaningfully related. Self- and peer-perceptions of bullying behavior positively correlated with one another ( $p < .001$ ), but self- and peer-perceptions of social acceptance and peer victimization were not meaningfully related. Teacher- and peer-perceptions of social acceptance, peer victimization, and bullying behavior positively correlated with one another ( $p < .01$ ).

Table 15

*Correlations between Self-Perceptions and Other-Perceptions*

Dimension	Self-Teacher	Self-Peer	Teacher-Peer
Social acceptance	.07	.13	.30**
Academic competence	.27**	---	---
Behavioral conduct	.22*	---	---
Peer victimization	-.03	.10	.29**
Bullying behavior	.24*	.35***	.65***

Notes.  $n = 99$ , with the exceptions of correlations involving teacher-rated social acceptance, academic competence, and behavioral conduct in which  $n = 98$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

One goal of the current study was to examine whether self-other perceptions within self-concept dimensions and across pairs of raters were significantly different from one another. Since the self-other correlations are based on variables from the same participants, and therefore are considered dependent correlation coefficients, the Fisher  $Z$  transformation (Fisher, 1921) could not be used. Two alternate tests for dependent samples were used to test the significance of differences between pairs of correlations: one test assessed differences across dimensions within the same pair of raters (i.e., the columns in Table 15), and the other test assessed differences across pairs of raters within the same dimension (i.e., the rows in Table 15).

A method summarized by Kenny (1979) was used to test for significant differences across dimensions within the same pair of raters. According to Kenny, this method was originally attributed by Peters and Van Voorhis (1940) to Pearson and Filon. The significance test outlined by Kenny uses a  $Z$  statistic to test the difference between correlations that appear in a cross-lagged panel design. Based on this method, five pairs of correlations were found to be statistically different from one another. Compared to parallel comparisons of peer victimization ratings, agreement was significantly stronger between self-teacher rated bullying behavior ( $z = 2.06, p < .05, n = 99$ ), self-peer rated bullying behavior ( $z = 2.22, p < .05, n = 99$ ), and teacher-peer rated bullying behavior ( $z = 3.47, p < .01, n = 99$ ). Agreement between teacher-peer rated bullying behavior also was significantly stronger than teacher-peer rated social acceptance ( $z = 3.25, p < .01, n = 98$ ). In addition, agreement between self-teacher rated academic competence was significantly stronger than self-teacher rated victimization ( $z = 2.24, p < .05, n = 98$ ).

To test for significant differences across pairs of raters within the same dimension, a method summarized by Hinkle, Wiersma, and Jurs (1988) was used. This method takes into account the shared variable that is present in the two correlations being compared (e.g., the self-teacher and self-peer correlations for social acceptance share the self-rated social acceptance variable). The underlying distribution of this test statistic is the Student's  $t$  distribution with  $n - 3$  degrees of freedom. Based on this method, three pairs of correlations were found to be statistically different from one another. These results partially support Hypothesis 4. As predicted, within the bullying behavior dimension, agreement between teacher-peer ratings was significantly stronger than between self-teacher ratings,  $t(96) = 4.69, p < .001$ , and between self-peer-ratings,  $t(96) = 3.28, p < .01$ . Within the peer victimization dimension, agreement between teacher-peer ratings was significantly stronger than between self-teacher ratings as predicted,  $t(96) = 2.43, p < .05$ , though agreement between teacher-peer ratings was not significantly different than between self-peer ratings as expected. Within the social acceptance dimension, none of the correlations were statistically different from one another.

Next, seven multiple regression analyses were conducted to examine the predictive value self- and other-perceptions of peer victimization have on self- and other-perceptions of competence (see Table 16). Five of the seven models were significant indicating that, in general, combined perceptions of peer victimization were predictive of self- and other-perceptions of competence. These results generally support Hypothesis 5. As predicted, higher self-reported victimization, compared to teacher- and peer-reported victimization, emerged as a unique predictor of lower self-reported social acceptance and behavioral conduct. As predicted, higher teacher- and peer-reported victimization,

compared to self-reported victimization, emerged as unique predictors of lower teacher- and peer-reported social acceptance. Higher peer-reported victimization, compared to self- and teacher-reported victimization, was also uniquely predictive of lower teacher-reported behavioral conduct. Contrary to Hypothesis 5, perceptions of victimization were not predictive of either self- or teacher-perceptions of academic competence.

Table 16

*Summary of Linear Regression Analyses for Perceptions of Victimization Predicting Perceptions of Competence*

Predictor	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>R</i> <sup>2</sup>	<i>F</i>
Dependent variable = self-rated social acceptance					.13	4.74**
Self-rated victimization	-.34	.10	-.34	-3.51**		
Teacher-rated victimization	-.16	.10	-.16	-1.58		
Peer-rated victimization	.09	.10	.09	0.91		
Dependent variable = self-rated academic competence					.03	1.10
Self-rated victimization	-.14	.10	-.14	-1.42		
Teacher-rated victimization	-.11	.11	-.11	-1.02		
Peer-rated victimization	.11	.11	.11	1.03		

Table 16 (continued)

Predictor	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>R</i> <sup>2</sup>	<i>F</i>
Dependent variable = self-rated behavioral conduct					.15	5.35**
Self-rated victimization	-.35	.10	-.35	-3.62***		
Teacher-rated victimization	.05	.10	.05	0.48		
Peer-rated victimization	-.13	.10	-.13	-1.29		
Dependent variable = teacher-rated social acceptance					.23	9.59***
Self-rated victimization	-.06	.09	-.07	-0.71		
Teacher-rated victimization	-.38	.09	-.38	-4.07***		
Peer-rated victimization	-.20	.09	-.20	-2.08*		
Dependent variable = teacher-rated academic competence					.07	2.41
Self-rated victimization	-.13	.10	-.13	-1.29		
Teacher-rated victimization	-.17	.10	-.18	-1.68		
Peer-rated victimization	-.11	.11	-.11	-1.05		
Dependent variable = teacher-rated behavioral conduct					.17	6.45**
Self-rated victimization	-.16	.09	-.16	-1.69		
Teacher-rated victimization	-.10	.10	-.10	-1.02		
Peer-rated victimization	-.33	.10	-.33	-3.33**		



Table 16 (continued)

Predictor	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>R</i> <sup>2</sup>	<i>F</i>
Dependent variable = peer-rated social acceptance					.26	0.90***
Self-rated victimization	-.14	.09	-.14	-1.51		
Teacher-rated victimization	-.36	.10	-.35	-3.82***		
Peer-rated victimization	-.25	.10	-.24	-2.63**		

*Notes.* *df* = 3, 95 for models predicting self- and peer-perceptions of competence. *df* = 3, 94 for models predicting teacher-perceptions of competence. Standardized betas were not included in the table since all data was standardized within classroom prior to regression analyses. \**p* <.05. \*\**p* <.01. \*\*\**p* <.001.

Seven additional multiple regression analyses were conducted to examine the predictive value self- and other-perceptions of bullying behavior have on self- and other-perceptions of competence (see Table 17). Four of the seven models were significant. These results partially support Hypothesis 5. As predicted, higher self-reported bullying behavior, compared to teacher- and peer-reported bullying behavior, emerged as a unique predictor of lower self-reported social acceptance and behavioral conduct. As predicted, higher teacher- and peer-reported bullying behavior, compared to self-reported bullying behavior, were unique predictors of lower teacher-reported behavioral conduct. The model examining the predictive value perceptions of bullying behavior had on peer-perceptions of social acceptance was significant, but a unique predictor did not emerge. Contrary to Hypothesis 5, perceptions of bullying behavior were not predictive of self- or teacher-perceptions of academic competence, or of teacher-rated social acceptance.

Table 17

*Summary of Linear Regression Analyses for Perceptions of Bullying Behavior Predicting Perceptions of Competence*

Predictor	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	$R^2$	<i>F</i>
Dependent variable = self-rated social acceptance					.09	2.98*
Self-rated bullying	-.31	.11	-.31	-2.96**		
Teacher-rated bullying	.05	.13	.05	0.39		
Peer-rated bullying	.10	.13	.10	0.73		
Dependent variable = self-rated academic competence					.02	0.77
Self-rated bullying	-.10	.11	-.10	-0.90		
Teacher-rated bullying	.16	.13	.16	1.22		
Peer-rated bullying	-.10	.14	-.09	-0.67		
Dependent variable = self-rated behavioral conduct					.30	3.45***
Self-rated bullying	-.54	.10	-.54	-5.89***		
Teacher-rated bullying	-.22	.11	-.22	-1.95		
Peer-rated bullying	.23	.12	.23	1.92		
Dependent variable = teacher-rated social acceptance					.02	0.67
Self-rated bullying	.07	.11	.07	0.60		
Teacher-rated bullying	.15	.13	.15	1.13		
Peer-rated bullying	-.17	.14	-.17	-1.24		

Table 17 (continued)

Predictor	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>R</i> <sup>2</sup>	<i>F</i>
Dependent variable = teacher-rated academic competence					.02	0.76
Self-rated bullying	-.07	.11	-.07	-0.63		
Teacher-rated bullying	-.15	.14	-.15	-1.14		
Peer-rated bullying	.05	.14	.05	0.35		
Dependent variable = teacher-rated behavioral conduct					.66	60.95***
Self-rated bullying	.01	.06	.01	0.21		
Teacher-rated bullying	-.51	.08	-.51	-6.40***		
Peer-rated bullying	-.39	.08	-.39	-4.68***		
Dependent variable = peer-rated social acceptance					.13	4.92**
Self-rated bullying	-.10	.11	-.10	-0.98		
Teacher-rated bullying	-.18	.13	-.17	-1.38		
Peer-rated bullying	-.19	.13	-.18	-1.38		

*Notes.* *df* = 3, 95 for models predicting self- and peer-perceptions of competence. *df* = 3, 94 for models predicting teacher-perceptions of competence. Standardized betas are not included in the table since all data was standardized within classroom prior to regression analyses. \**p* <.05. \*\**p* <.01. \*\*\**p* <.001.

Discrepancies between Self-Other Perceptions and Self-Reported Emotions

This section presents results related to the second research question: do discrepancies between self- and other-perceptions predict self-reported emotions? Correlations between self-perceptions and self-reported emotions were previously presented in Table 13. Correlations between other-perceptions and self-reported emotions are presented in Table 18. Only one correlation was significant between other-perceptions and self-reported emotions: peer-perceptions of social acceptance positively correlated with global self-worth ( $p < .05$ ). Correction for measurement error in the scales had little impact on the relationship between other-perceptions and self-reported emotions, as can be seen by the disattenuated correlations presented in Table 18.

Table 18

*Correlations between Teacher- and Peer-Perceptions with Self-Reported Emotions*

Subscale	Depression	Anxiety	Anger	Self-Worth
	Teacher-perceptions			
Social acceptance	-.01	.06	-.18	.08
	-.02	.09	-.22	.10
Academic competence	-.13	-.05	-.12	.16
	-.18	-.07	-.13	.19
Behavioral conduct	-.06	.03	-.04	.03
	-.08	.03	-.04	.03
Peer victimization	-.01	-.03	-.04	-.06
	-.01	-.05	-.04	-.08
Bullying behavior	.08	-.17	.03	.05
	.12	-.23	.04	.06

Table 18 (continued)

Subscale	Depression	Anxiety	Anger	Self-Worth
	Peer-perceptions			
Social acceptance	-.07	-.05	-.20	.24*
	-.10	-.06	-.20	.28
Peer victimization	.04	-.05	.03	-.07
	.06	-.06	.03	-.09
Bullying behavior	.02	-.04	.02	-.03
	.03	-.06	.02	-.04

*Notes.*  $n = 99$ , with the exceptions of teacher-rated social acceptance, academic competence, and behavioral conduct in which  $n = 98$ . Disattenuated correlations appear in the second row of each dimension. Disattenuated correlations involving peer-rated social acceptance corrected for measurement error in the self-reported emotions scales only.  $*p < .05$ .

Three methods have been commonly used in past research to measure informant discrepancies: (a) raw difference scores, or the difference between two informants' raw or unstandardized ratings; (b) standardized difference scores, which are created by converting informants' ratings into z-scores then subtracting one informant's score from another informant's score; and (c) residual difference scores, which are created by regressing one group of informants' ratings on another group of informants' ratings. De Los Reyes and Kazdin (2004) pointed out that the mathematical properties of the different measures of informant discrepancies are distinct and depend on variance differences between informant ratings and the degree of correlation between informant

ratings. If the variance within self- and other-reports is the same, raw difference scores and standardized difference scores will yield the same value. If one group's variance is maximally larger than the other group's variance, raw difference scores and standardized difference scores will yield very different values. In addition, correlations between self- and other-reports greatly influence residual difference scores. When the correlation between informants' ratings is low, the residual difference score will be almost completely predicted by the dependent variable (DV) informants' ratings and the relationship between the independent variable (IV) informants' ratings and the residual difference score will be zero. As the correlation between informants' ratings increases, the relationship between the residual difference score and the DV informants' ratings will decrease, and the relationship between the IV informants' ratings and the residual difference score will remain zero since the residual difference score is composed of variance in the DV informants' ratings that is not related to the IV informants' ratings.

De Los Reyes and Kazdin (2004) examined self-other discrepancies in a sample of clinic-referred children and their mothers to illustrate the differences among the three methods. Using residual difference scores in the analyses resulted in a loss of child-specific characteristics. The raw difference score did not result in the same loss of child-specific characteristics, but was inconsistent in its correlations between child and mother characteristics. The standardized difference score produced the most consistent relationships between child and mother characteristics, and retained the ability to distinguish child-specific characteristics. The authors recommended that future research utilize standardized difference scores as the measure of informant discrepancies. They argued that this method is consistent with the belief that no one informant should be

considered the "gold standard" since informants' ratings correlate equally with the standardized difference score.

There is also a theoretical argument for using standardized difference scores rather than residual difference scores. Standardized difference scores more directly represent the relationship between two individual raters, where residual difference scores adjust for systematic relationships across raters. The current study was interested in how each child was directly perceived by his or her teacher and peers, and in turn, how congruence of these ratings related to self-reported emotions. Therefore, the current study utilized standardized difference scores to measure self-other discrepancies. Eight standardized difference variables were created by subtracting teacher- and peer-ratings that had been standardized by classroom from self-ratings that had been standardized by classroom. Five standardized difference variables compared self- and teacher-perceptions, and three standardized difference variables compared self- and peer-perceptions. Means and standard deviations for the new variables are presented in Table 19.

Table 19

*Means, Standard Deviations, Minimum Values, and Maximum Values for the Standardized Difference Score Variables*

Dimension	<i>M</i>	<i>SD</i>	Minimum	Maximum
Self-teacher standardized difference scores				
Social acceptance	.01	1.33	-2.93	3.62
Academic competence	.01	1.18	-3.27	2.46
Behavioral conduct	.02	1.22	-2.66	3.75
Peer victimization	.00	1.40	-4.09	3.70
Bullying behavior	.00	1.21	-3.02	3.34
Self-peer standardized difference scores				
Social acceptance	.00	1.30	-3.28	3.09
Peer victimization	.00	1.31	-4.03	3.18
Bullying behavior	.00	1.11	-3.82	3.15

*Note.*  $n = 99$ , with the exceptions of self-teacher comparisons of social acceptance, academic competence, and behavioral conduct in which  $n = 98$ .



Correlations between the standardized difference variables with corresponding self-reported variables and self-reported emotions are presented in Table 20. Correlations between the standardized difference variables and corresponding self-reported variables were very strong ( $r$  range = .57 to .72,  $p < .001$ ), as would be expected. Several correlations between the standardized difference variables and self-reported emotions were also significant. Within the social acceptance dimension, the standardized difference variable comparing self- and teacher-perceptions negatively correlated with self-reported anxiety ( $p < .05$ ). Within the behavioral conduct dimension, the standardized difference variable comparing self- and teacher-perceptions positively correlated with global self-worth ( $p < .01$ ). Within the peer victimization dimension, the standardized difference variables comparing self- and teacher-perceptions and self- and peer-perceptions positively correlated with self-reported depression and anxiety ( $p < .01$ ), and negatively correlated with global self-worth ( $p < .05$ ). Within the bullying behavior dimension, the standardized difference variables comparing self- and teacher-perceptions and self- and peer-perceptions negatively correlated with global self-worth ( $p < .05$ ). The standardized difference variable comparing self- and teacher-perceptions of bullying behavior also positively correlated with self-reported anxiety ( $p < .05$ ).

Table 20

*Correlations between Standardized Difference Score Variables with Corresponding Self-Reported Variables and Self-Reported Emotions*

Dimension	Self-Report	Depression	Anxiety	Anger	Self-Worth
Self-teacher comparisons					
Social acceptance	.69***	-.08	-.23*	.04	.18
Academic competence	.60***	-.10	-.11	-.14	-.18
Behavioral conduct	.62***	-.17	-.15	-.16	.32**
Peer victimization	.72***	.23*	.25*	.18	-.20*
Bullying behavior	.62***	.11	.27**	.16	-.30**
Self-peer comparisons					
Social acceptance	.65***	-.03	-.14	.05	.06
Peer victimization	.67***	.21*	.28**	.14	-.21*
Bullying behavior	.57***	.17	.18	.19	-.26*

*Notes.*  $n = 99$ , with the exceptions of self-teacher comparisons of social acceptance, academic competence, and behavioral conduct in which  $n = 98$ . Correlations between standardized difference score variables and corresponding teacher- and peer-reported variables are not presented as they were nearly identical to correlations between standardized difference score variables and corresponding self-reported variables.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Based on past literature, two hypotheses were made regarding the relationship of discrepancies between self- and other-perceptions and self-reported emotions. Hypothesis 6 stated that children who underrated their competence relative to other-perceptions would report higher depression and anxiety scores, and lower global self-worth scores. The opposite pattern was predicted for children who overrated their competence relative to other-perceptions. Hypothesis 7 stated that children who overrated their victimization relative to other-perceptions would report higher depression and anxiety scores, and lower global self-worth scores.

Hypotheses 6 and 7 were examined in a series of hierarchical blockwise regression analyses. The *direction* and *magnitude* of discrepancies were separated in the analyses as it was possible they would differentially relate to children's emotions. Standardized difference variables were used as the indicator of the direction of discrepancies as they included positive and negative signs (i.e., overrating and underrating). Absolute values of the standardized difference variables were used as the indicator of the magnitude of discrepancies. In addition, it was important to examine how self-perceptions may interact with self-other discrepancies. Examining the impact self-report has in combination with self-other discrepancies is a departure from past literature, which has typically examined self-other discrepancies independent of self-report. There were two main reasons to include self-report in the analyses. First, past literature has shown a significant relationship between self-perceptions and self-reported emotions, and a significant relationship between self-other discrepancies and self-reported emotions. Including self-report and self-other discrepancies in the same analyses helped examine which may have a greater impact on self-reported emotions. Second, level of self-report

sets the parameters for self-other discrepancies. Children who report average self-perceptions are more likely to have self-other discrepancies that are lower in magnitude than children who report either high or low self-perceptions. Since self-perceptions are inextricably linked to self-other discrepancies in this way, it was possible that level of self-report would moderate the impact of self-other discrepancies on self-reported emotions.

To examine the relative impact of self-report and self-other discrepancies on self-reported emotions, the regression analyses were constructed two ways. The first set of analyses entered the discrepancy variables (direction and magnitude) in the first model (referred to as Model 1a in Tables 21-24), where the second set of analyses entered the self-report variable in the first model (Model 1b). Both sets of analyses entered the self-report variable and the discrepancy variables in the second model (Model 2), and entered the self-report variable, the discrepancy variables, and interactions between the self-report variable and the discrepancy variables in the third model (Model 3).

A summary of the regression analyses that examined the relative impact of self-perceptions and self-other discrepancies on self-reported anxiety is presented in Table 21. When looking at the impact of self-other discrepancies on anxiety independent of self-report (see Model 1a), three of the eight models were significant: self-teacher victimization, self-peer victimization, and self-teacher bullying behavior. In all three models, the direction of the discrepancy emerged as a unique predictor. To facilitate the interpretation of these findings, the direction and magnitude discrepancy variables were examined at different points along their regression lines. Five levels of discrepancy were selected for comparison: a) underraters relative to teacher- and peer-perceptions were

defined at two levels, a discrepancy score that fell two *SDs* below the mean ( $-2 SD$ ), and a discrepancy score that fell one *SD* below the mean ( $-1 SD$ ); (b) congruent raters were defined by a discrepancy score that was equal to the mean; and (c) overraters relative to teacher- and peer-perceptions were defined at two levels, a discrepancy score that fell one *SD* above the mean ( $+1 SD$ ), and a discrepancy score that fell two *SDs* above the mean ( $+2 SD$ ). In support of Hypothesis 7, children who overrated their victimization relative to teacher-perceptions had higher predicted anxiety scores, while children who underrated their victimization relative to teacher-perceptions had lower predicted anxiety scores ( $+2 SD$  T-score = 58.23;  $+1 SD$  T-score = 55.50;  $0 SD$  T-score = 52.77;  $-1 SD$  T-score = 51.41;  $-2 SD$  T-score = 50.06). The same pattern was found for children who overrated their victimization relative to peer-perceptions ( $+2 SD$  T-score = 57.74;  $+1 SD$  T-score = 55.84;  $0 SD$  T-score = 53.93;  $-1 SD$  T-score = 51.17;  $-2 SD$  T-score = 48.41). However, in both cases, when self-report was entered into the model first, the self-other discrepancy variables did not have a significant impact on anxiety scores (see Model 1b and Model 2). This suggests that self-perceptions are driving the relationship between victimization and anxiety, not self-other discrepancies as predicted based on past research. Although predictions regarding bullying behavior were not made, children who overrated their bullying behavior relative to teacher-perceptions had higher predicted anxiety scores, where children who underrated their bullying behavior relative to teacher-perceptions had lower predicted anxiety scores ( $+2 SD$  T-score = 58.21;  $+1 SD$  T-score = 55.95;  $0 SD$  T-score = 53.68;  $-1 SD$  T-score = 51.01;  $-2 SD$  T-score = 48.35). Self-reported bullying behavior did not impact this finding.

In addition, significant interactions between self-report and the discrepancy variables were found in three of the models that examined self-reported anxiety: self-teacher perceived social acceptance, self-peer perceived social acceptance, and self-teacher perceived academic competence (see Model 3 in Table 21). To facilitate the interpretation of the interactions, the self-report and discrepancy variables were examined at different points along their regression lines. The five discrepancy levels previously presented were used for comparison. In addition, three levels of self-report were selected for comparison: (a) a high self-rating, defined as a rating equal to one *SD* above the mean; (b) an average self-rating, defined as a rating equal to the mean; and (c) a low self-rating, defined as a rating equal to one *SD* below the mean.

Regarding self-teacher perceptions of social acceptance, the direction of the discrepancy and the interaction between self-report and magnitude of the discrepancy emerged as unique predictors of self-reported anxiety (see Table 21). In partial support of Hypothesis 6, children who underrated their social acceptance relative to teacher-perceptions had higher predicted anxiety scores compared to congruent raters or underraters (see Figure 2). This finding was particularly robust for children who reported a high level of social acceptance (-2 *SD* T-score = 74.90; -1 *SD* T-score = 61.83; 0 *SD* T-score = 48.76; +1 *SD* T-score = 49.14; +2 *SD* T-score = 49.52), or an average level of social acceptance (-2 *SD* T-score = 67.70; -1 *SD* T-score = 60.04; 0 *SD* T-score = 52.38; +1 *SD* T-score = 52.24; +2 *SD* T-score = 52.11). The same pattern was found for children who reported a low level of social competence, though the impact on predicted anxiety scores was not as great (-2 *SD* T-score = 60.51; -1 *SD* T-score = 58.25; 0 *SD* T-score = 55.99; +1 *SD* T-score = 55.34; +2 *SD* T-score = 54.69). Contrary to Hypothesis 6, there

was no support that overraters experienced less anxiety compared to congruent raters or underraters.

Regarding self-peer perceptions of social acceptance, self-report and the interaction between self-report and direction of the discrepancy emerged as unique predictors of self-reported anxiety (see Table 21). Similar to the self-teacher analysis, and in partial support of Hypothesis 6, children who underrated their social acceptance relative to peer-perceptions, who also reported a high level of social acceptance, had higher predicted anxiety scores compared to congruent raters or overraters (-2 *SD* T-score = 65.71; -1 *SD* T-score = 57.70; 0 *SD* = T-score = 49.68; +1 *SD* T-score = 49.06; +2 *SD* T-score = 48.43; see Figure 2). The same pattern was present for underraters who reported an average level of social competence, though the impact on predicted anxiety scores was not as great (-2 *SD* T-score = 61.17; -1 *SD* T-score = 57.54; 0 *SD* T-score = 53.90; +1 *SD* T-score = 54.20; +2 *SD* T-score = 54.49). However, underraters who reported a low level of social acceptance had slightly lower predicted anxiety scores compared to congruent raters or overraters (-2 *SD* T-score = 56.63; -1 *SD* T-score = 57.38; 0 *SD* T-score = 58.13; +1 *SD* T-score = 59.34; +2 *SD* T-score = 60.54). Contrary to Hypothesis 7, there was no support that overraters experienced less anxiety compared to congruent raters or underraters.

Regarding self-teacher perceptions of academic competence, the interaction between self-report and direction of the discrepancy emerged as a unique predictor of self-reported anxiety (see Table 21). Support for Hypothesis 6, which stated that children who underrated their academic competence relative to teacher-perceptions would report higher anxiety scores and children who overrated their academic competence relative to

teacher-perceptions would report lower anxiety scores, was moderated by level of self-report. As illustrated in Figure 3, the predicted pattern was found for children who rated a high level of academic competence (-2 *SD* T-score = 58.97; -1 *SD* T-score = 56.05; 0 *SD* T-score = 53.13; +1 *SD* T-score = 49.49; +2 *SD* T-score = 45.85), where the opposite pattern was found for children who rated a low level of academic competence (-2 *SD* T-score = 53.13; -1 *SD* T-score = 55.60; 0 *SD* T-score = 58.07; +1 *SD* T-score = 61.24; +2 *SD* T-score = 64.41). Discrepancies between self-teacher perceptions of academic competence had virtually no impact on predicted anxiety scores for children who reported an average level of academic competence.



Table 21

*Summary of Hierarchical Regression Analyses for Self-Perceptions and Self-Other Discrepancies Predicting Self-Reported Anxiety*

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher social acceptance					
Model 1a	.05			53.54	
Direction				-1.86*	-.23
Magnitude				0.01	.00
Model 1b	.06*			53.54	
Self-report (SR)				-2.72*	-.24
Model 2	.07	.02	.01	54.11	
SR				-2.06	-.18
Direction				-0.82	-.10
Magnitude				-0.54	-.04
Model 3	.14*	.07*	.07*	52.38	
SR				-3.62	-.32
Direction				-3.90*	-.47
Magnitude				3.76	.29
SR·Direction				-2.45	-.34
SR·Magnitude				2.96*	.47
Self-peer social acceptance					
Model 1a	.03			55.24	
Direction				-1.36	-.16
Magnitude				-1.66	-.12
Model 1b	.06*			53.50	
Self-report (SR)				-2.71*	-.24
Model 2	.08*	.05*	.02	55.93	
SR				-3.33*	-.30
Direction				0.19	.02
Magnitude				-2.32	-.16
Model 3	.15**	.07*	.07*	53.90	
SR				-4.22*	-.38
Direction				-1.67	-.20
Magnitude				1.96	.14
SR·Direction				-2.65*	-.35
SR·Magnitude				1.73	.26

Table 21 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher academic acceptance					
Model 1a	.04			55.99	
Direction				-1.07	-.12
Magnitude				-2.58	-.16
Model 1b	.03			53.54	
Self-report (SR)				-2.06	-.08
Model 2	.08	.04	.05	56.71	
SR				-2.79	-.25
Direction				0.30	.03
Magnitude				-3.33*	-.21
Model 3	.11*	.03	.03	55.60	
SR				-2.47	-.22
Direction				-0.23	-.02
Magnitude				0.00	.00
SR·Direction				-3.05*	-.30
SR·Magnitude				-0.36	-.04
Self-teacher behavioral conduct					
Model 1a	.04			55.01	
Direction				-1.20	-.13
Magnitude				-1.59	-.12
Model 1b	.03			53.54	
Self-report (SR)				-1.87	-.17
Model 2	.06	.02	.03	55.71	
SR				-2.17	-.19
Direction				-0.04	.00
Magnitude				-2.35	-.17
Model 3	.06	.00	.00	55.07	
SR				-0.75	-.07
Direction				0.86	.10
Magnitude				-1.74	-.13
SR·Direction				-0.21	-.02
SR·Magnitude				-1.66	-.23

Table 21 (continued)

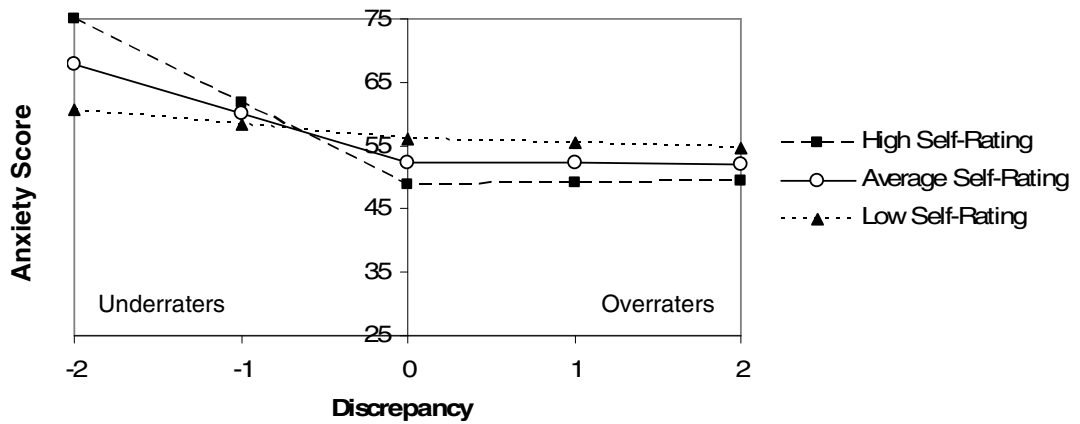
Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher victimization					
Model 1a	.07*			52.77	
Direction				2.04**	.26
Magnitude				0.69	.06
Model 1b	.11**			53.50	
Self-report (SR)				3.73**	.33
Model 2	.12**	.06**	.01	55.56	
SR				5.14*	.46
Direction				-0.72	-.09
Magnitude				-1.93	-.16
Model 3	.13*	.01	.01	54.42	
SR				3.07	.27
Direction				-0.02	-.00
Magnitude				-0.15	-.01
SR·Direction				-1.10	-.17
SR·Magnitude				-0.91	.16
Self-peer victimization					
Model 1a	.08*			53.93	
Direction				2.33**	.28
Magnitude				-0.43	-.03
Model 1b	.11**			53.50	
Self-report (SR)				3.73**	.33
Model 2	.13**	.05*	.02	55.37	
SR				3.83*	.34
Direction				0.38	.05
Magnitude				-1.85	-.14
Model 3	.14*	.01	.01	55.16	
SR				4.49*	.40
Direction				0.98	.12
Magnitude				-1.33	-.10
SR·Direction				-0.16	-.02
SR·Magnitude				-0.81	-.13

Table 21 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher bullying behavior					
Model 1a	.07*			53.68	
Direction				2.47**	.27
Magnitude				-0.20	-.02
Model 1b	.03			53.50	
Self-report (SR)				1.86	.17
Model 2	.07	.00	.04	53.74	
SR				0.15	.01
Direction				2.40	.26
Magnitude				-0.27	-.02
Model 3	.12*	.05	.05	52.35	
SR				-1.79	-.16
Direction				4.00*	.44
Magnitude				3.43	.26
SR·Direction				-3.26	-.46
SR·Magnitude				1.25	-.19
Self-peer bullying behavior					
Model 1a	.04			53.93	
Direction				1.82	.18
Magnitude				-0.55	-.04
Model 1b	.03			53.50	
Self-report (SR)				1.86	.17
Model 2	.05	.01	.02	54.92	
SR				2.03	.18
Direction				0.81	.08
Magnitude				-1.79	-.13
Model 3	.05	.00	.00	54.37	
SR				1.48	.13
Direction				1.64	.17
Magnitude				-0.50	-.04
SR·Direction				-0.74	-.10
SR·Magnitude				-0.08	-.01

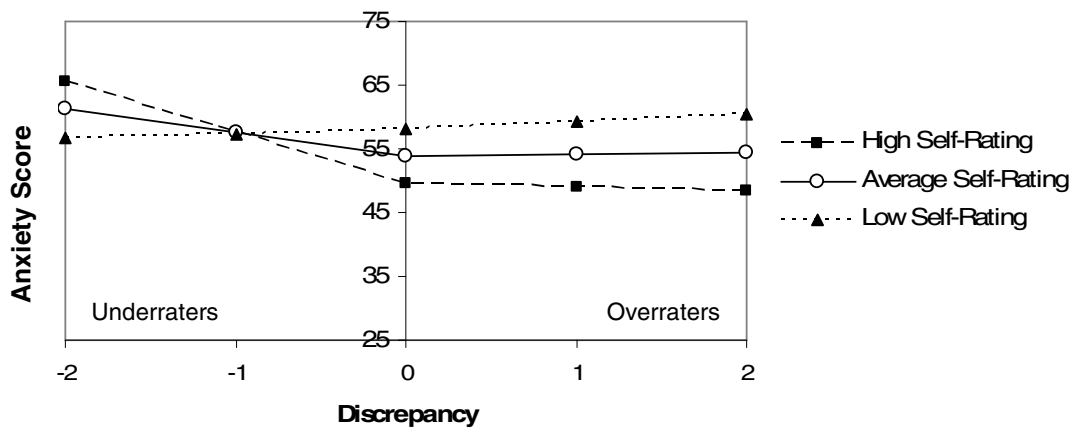
Notes.  $n = 99$ , except for self-teacher comparisons of social acceptance, academic competence, and behavioral conduct in which  $n = 98$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

### Self-Teacher Social Acceptance



-2	-1	0	1	2	Self-Rating
74.90	61.83	48.76	49.14	49.52	High
67.70	60.04	52.38	52.24	52.11	Average
60.51	58.25	55.99	55.34	54.69	Low

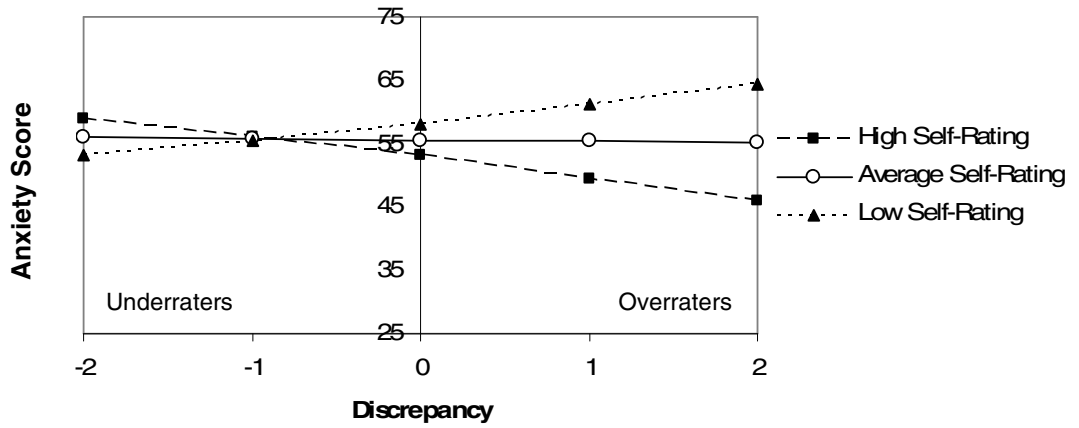
### Self-Peer Social Acceptance



-2	-1	0	1	2	Self-Rating
65.71	57.70	49.68	49.06	48.43	High
61.17	57.54	53.90	54.20	54.49	Average
56.63	57.38	58.13	59.34	60.54	Low

Figure 2. Impact of standardized discrepancies between self- and other-perceived social acceptance on self-reported anxiety, as moderated by level of self-perceived social acceptance.

### Self-Teacher Academic Competence



-2	-1	0	1	2	Self-Rating
58.97	56.05	53.13	49.49	45.85	High
56.05	55.83	55.60	55.37	55.13	Average
53.13	55.60	58.07	61.24	64.41	Low

*Figure 3.* Impact of standardized discrepancies between self- and teacher-perceived academic competence on self-reported anxiety, as moderated by level of self-perceived academic competence.

A summary of the regression analyses that examined the predictive value self-perceptions and self-other discrepancies had on self-reported depression is presented in Table 22. When looking at the impact of self-other discrepancies independent of self-report, only one of the eight models was significant. The direction of discrepancies between self-teacher perceptions of victimization emerged as a unique predictor of self-reported depression. In support of Hypothesis 7, children who overrated their victimization relative to teacher-perceptions had higher predicted depression scores, while children who underrated their victimization relative to teacher-perceptions had lower predicted depression scores (+2 *SD* T-score = 50.17; +1 *SD* T-score = 48.13; 0 *SD* T-score = 46.09; -1 *SD* T-score = 45.71; -2 *SD* T-score = 45.33). However, after self-report was entered into the model, a significant interaction between self-report and the discrepancy variables was found, limiting the meaningfulness of looking at the discrepancy variables in isolation. Self-reported victimization and the interaction between self-report and magnitude of the discrepancy emerged as unique predictors of self-reported depression (see Table 22). As illustrated in Figure 4, children who overrated their victimization relative to teacher-perceptions who also reported a low level of victimization had higher predicted depression scores compared to congruent raters or underraters (+2 *SD* T-score = 52.95; +1 *SD* T-score = 47.86; 0 *SD* T-score = 42.77; -1 *SD* T-score = 43.81; -2 *SD* T-score = 44.85). The same pattern was found for overraters who reported an average level of victimization, though the impact on predicted depression scores was not as great (+2 *SD* T-score = 52.05; +1 *SD* T-score = 49.57; 0 *SD* T-score = 47.09; -1 *SD* T-score = 46.71; -2 *SD* T-score = 46.32). However, discrepancies between self-teacher perceptions of victimization had little impact on predicted self-reported

depression scores for children who reported a high level of victimization (+2 *SD* T-score = 51.16; +1 *SD* T-score = 51.28; 0 *SD* T-score = 51.41; -1 *SD* T-score = 49.61; -2 *SD* T-score = 47.80).

A similar interaction was found in the model that examined the relative impact of self-perceptions and self-peer discrepancies of victimization on self-reported depression. Here, self-report, direction of the discrepancy, and the interaction between self-report and magnitude of the discrepancy emerged as unique predictors of self-reported depression (see Table 22). As illustrated in Figure 4, children who overrated their victimization relative to peer-perceptions who also reported a low level of victimization had higher predicted depression scores compared to congruent raters or underraters (+2 *SD* T-score = 57.08; +1 *SD* T-score = 49.51; 0 *SD* T-score = 41.94; -1 *SD* T-score = 43.54; -2 *SD* T-score = 45.15). Overraters who reported an average level of victimization also had higher predicted depression scores compared to congruent raters or underraters, though the impact on predicted depression scores was not as great (+2 *SD* T-score = 54.57; +1 *SD* T-score = 50.25; 0 *SD* T-score = 45.94; -1 *SD* T-score = 46.41; -2 *SD* T-score = 46.88). However, discrepancies between self-teacher perceptions of victimization had little impact on predicted self-reported depression scores for children who reported a high level of victimization (+2 *SD* T-score = 52.05; +1 *SD* T-score = 50.99; 0 *SD* T-score = 49.93; -1 *SD* T-score = 49.28; -2 *SD* T-score = 48.62).



Table 22

*Summary of Hierarchical Regression Analyses for Self-Perceptions and Self-Other Discrepancies Predicting Self-Reported Depression*

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher social acceptance					
Model 1a	.02			46.08	
Direction				-0.43	-.08
Magnitude				0.84	.10
Model 1b	.02			46.94	
Self-report (SR)				-0.86	-.12
Model 2	.02	.00	.00	46.26	
SR				-0.64	-.09
Direction				-0.10	-.02
Magnitude				0.66	.08
Model 3	.04	.02	.02	46.26	
SR				-1.71	-.24
Direction				-0.80	-.15
Magnitude				0.84	.10
SR·Direction				0.03	.01
SR·Magnitude				1.17	.29
Self-peer social acceptance					
Model 1a	.00			46.79	
Direction				-0.17	-.03
Magnitude				0.18	.02
Model 1b	.02			46.97	
Self-report (SR)				-0.86	-.12
Model 2	.02	.02	.00	47.04	
SR				-1.23	-.17
Direction				0.41	.08
Magnitude				-0.07	.00
Model 3	.05	.03	.03	46.97	
SR				0.34	.05
Direction				1.30	.24
Magnitude				-0.02	.00
SR·Direction				-0.37	-.08
SR·Magnitude				-1.76	-.42

Table 22 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher academic acceptance					
Model 1a	.01			46.84	
Direction				-0.57	-.10
Magnitude				0.11	.01
Model 1b	.06*			46.95	
Self-report (SR)				-1.73*	-.24
Model 2	.07	.06*	.01	47.39	
SR				-2.16*	-.31
Direction				0.49	.08
Magnitude				-0.47	-.05
Model 3	.09	.02	.02	47.10	
SR				-3.30*	-.47
Direction				-0.62	-.11
Magnitude				0.57	.06
SR·Direction				-0.61	-.10
SR·Magnitude				1.81	.33
Self-teacher behavioral conduct					
Model 1a	.03			47.45	
Direction				-0.91	-.16
Magnitude				-0.54	-.06
Model 1b	.07**			46.96	
Self-report (SR)				-1.94**	-.27
Model 2	.10*	.07*	.03	48.24	
SR				-2.45*	-.34
Direction				0.40	.07
Magnitude				-1.40	-.16
Model 3	.10	.00	.00	48.12	
SR				-1.91	-.27
Direction				0.94	.16
Magnitude				-1.54	-.18
SR·Direction				0.19	.04
SR·Magnitude				-0.78	-.17

Table 22 (continued)

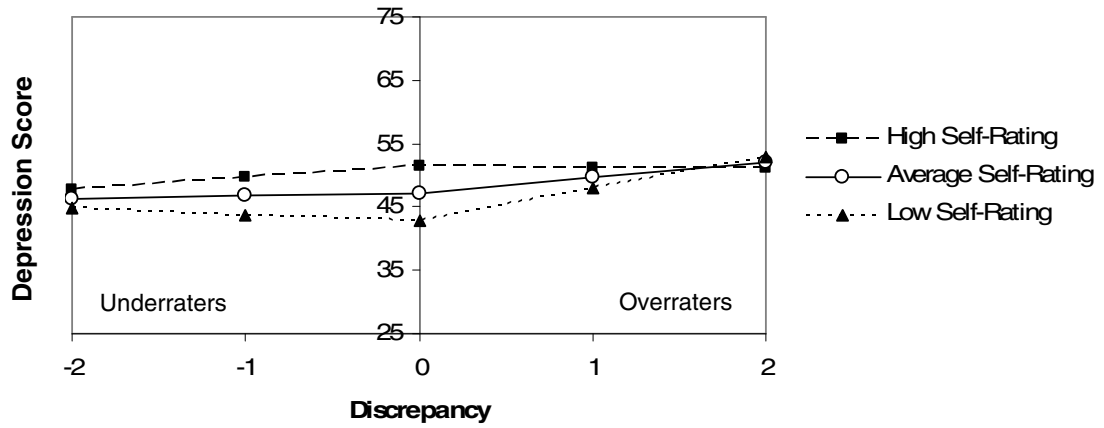
Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher victimization					
Model 1a	.07*			46.09	
Direction				1.21*	.25
Magnitude				0.83	.11
Model 1b	.11**			46.97	
Self-report (SR)				2.31**	.33
Model 2	.11*	.04*	.00	47.64	
SR				2.86*	.40
Direction				-0.32	-.07
Magnitude				-0.63	-.08
Model 3	.19**	.08*	.08*	47.09	
SR				4.32*	.61
Direction				1.43	.29
Magnitude				1.05	.14
SR·Direction				-0.59	-.14
SR·Magnitude				-2.01*	-.56
Self-peer victimization					
Model 1a	.06			46.08	
Direction				1.15*	.22
Magnitude				0.88	.11
Model 1b	.11**			46.97	
Self-report (SR)				2.31**	.33
Model 2	.11*	.05*	.00	46.96	
SR				2.34*	.33
Direction				-0.04	-.01
Magnitude				0.01	.00
Model 3	.22***	.11**	.11**	45.94	
SR				4.00**	.56
Direction				1.92*	.36
Magnitude				2.40	.29
SR·Direction				-1.06	-.25
SR·Magnitude				-2.19*	-.57

Table 22 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher bullying behavior					
Model 1a	.04			45.80	
Direction				0.46	.08
Magnitude				1.34	.16
Model 1b	.05*			46.97	
Self-report (SR)				1.54*	.22
Model 2	.05	.01	.00	46.35	
SR				1.35	.19
Direction				-0.14	-.02
Magnitude				0.71	.08
Model 3	.09	.04	.04	45.82	
SR				1.67	.24
Direction				1.34	.24
Magnitude				2.56	.31
SR·Direction				-0.92	-.21
SR·Magnitude				-1.13	-.27
Self-peer bullying behavior					
Model 1a	.05			46.05	
Direction				1.06	.17
Magnitude				1.16	.13
Model 1b	.05*			46.97	
Self-report (SR)				1.54*	.22
Model 2	.05	.00	.00	46.49	
SR				0.91	.13
Direction				0.61	.10
Magnitude				0.61	.07
Model 3	.11	.06	.06	45.42	
SR				0.62	.08
Direction				3.01*	.49
Magnitude				3.83*	.43
SR·Direction				-1.71*	-.38
SR·Magnitude				-1.20	-.28

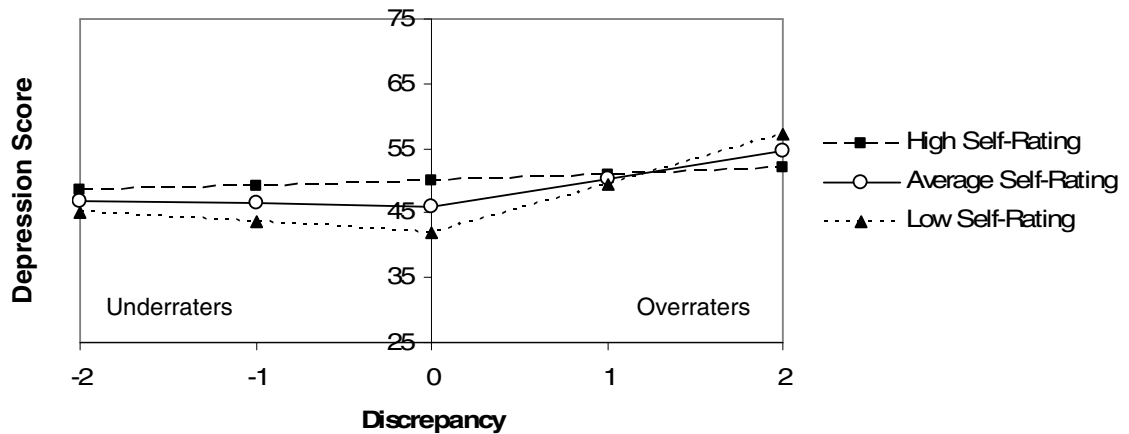
Notes.  $n = 99$ , except for self-teacher comparisons of social acceptance, academic competence, and behavioral conduct in which  $n = 98$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

### Self-Teacher Victimization



-2	-1	0	1	2	Self-Rating
47.80	49.61	51.41	51.28	51.16	High
46.32	46.71	47.09	49.57	52.05	Average
44.85	43.81	42.77	47.86	52.95	Low

### Self-Peer Victimization



-2	-1	0	1	2	Self-Rating
48.62	49.28	49.93	50.99	52.05	High
46.88	46.41	45.94	50.25	54.57	Average
45.15	43.54	41.94	49.51	57.08	Low

Figure 4. Impact of standardized discrepancies between self- and other-perceived victimization on self-reported depression, as moderated by level of self-perceived victimization.

A summary of the regression analyses that examined the predictive value self-perceptions and self-other discrepancies had on global self-worth is presented in Table 23. When looking at the impact of self-other discrepancies independent of self-report, five of the eight models were significant. The direction and magnitude of the discrepancies emerged as unique predictors in the models that examined self-teacher perceptions of social acceptance, self-peer perceptions of victimization, self-teacher perceptions of bullying behavior, and self-peer perceptions of bullying behavior. The direction of the discrepancy emerged as a unique predictor in the model that examined self-teacher behavioral conduct. These findings lend support to Hypothesis 6. Children who underrated their social acceptance relative to teacher-perceptions, particularly at the  $-2 SD$  level, had lower global self-worth scores compared to congruent raters and overraters ( $-2 SD$  score = 2.80;  $-1 SD$  score = 3.11;  $0 SD$  score = 3.41;  $+1 SD$  score = 3.32;  $+2 SD$  score = 3.22). In addition, children who underrated their behavioral conduct relative to teacher-perceptions had lower predicted global self-worth scores compared to congruent raters and overraters, while overraters had higher global self-worth scores compared to congruent raters and underraters ( $-2 SD$  score = 2.71;  $-1 SD$  score = 3.00;  $0 SD$  score = 3.28;  $+1 SD$  score = 3.40;  $+2 SD$  score = 3.53). The findings also lend support to Hypothesis 7. Children who overrated their victimization relative to peer-perceptions had lower predicted global self-worth scores compared to congruent raters and underraters ( $+2 SD$  score = 2.73;  $+1 SD$  score = 3.08;  $0 SD$  score = 3.40;  $-1 SD$  score = 3.33;  $-2 SD$  score = 3.27). Although no predictions were made regarding bullying behavior, children who overrated their bullying behavior had lower predicted global self-worth scores in the self-teacher model ( $+2 SD$  score = 2.68;  $+1 SD$  score = 3.02;  $0 SD$

score = 3.35; -1 *SD* score = 3.35; -2 *SD* score = 3.34), and in the self-peer model (+2 *SD* score = 2.56; +1 *SD* score = 2.98; 0 *SD* score = 3.41; -1 *SD* score = 3.32; -2 *SD* score = 3.23).

However, after accounting for the impact of self-reported competence, victimization, and bullying behavior on global self-worth, only two of the eight analyses found a significant impact of self-other discrepancies on global self-worth (self-teacher victimization and self-peer victimization), and both of these findings were moderated by level of self-report (see Table 23). In the model that examined self-teacher perceptions of victimization, self-report and the interaction between self-report and magnitude of the discrepancy emerged as unique predictors of global self-worth. As illustrated in Figure 5, children who reported a high level of victimization had lower predicted global self-worth scores (+2 *SD* score = 3.10; +1 *SD* score = 2.65; 0 *SD* score = 2.21; -1 *SD* score = 2.65; -2 *SD* score = 3.09), compared to children who reported an average level of victimization (+2 *SD* score = 3.59; +1 *SD* score = 3.28; 0 *SD* score = 2.98; -1 *SD* score = 3.15; -2 *SD* score = 3.33), or a low level of victimization (+2 *SD* score = 3.92; +1 *SD* score = 3.83; 0 *SD* score = 3.74; -1 *SD* score = 3.57; -2 *SD* score = 3.40). This model did not support Hypothesis 7. For children who rated themselves as having a high or average level of victimization, the lowest global self-worth scores were predicted for congruent raters. For children who rated themselves as having a low level of victimization, the lowest global self-worth scores were predicted for underraters, while the highest global self-worth scores were predicted for overraters.

In the model that examined self-peer perceptions of victimization, self-report and magnitude of the discrepancy emerged as unique predictors of global self-worth (see

Figure 5). This model generally supports Hypothesis 7. Children who overrated their victimization, particularly at the -2 *SD* level, had lower predicted global self-worth scores compared to congruent raters or underraters. However, the relative impact of this finding was moderated by level of self-reported victimization. The greatest impact was found for children who reported a low level of victimization (+2 *SD* score = 2.24; +1 *SD* score = 3.01; 0 *SD* score = 3.77; -1 *SD* score = 3.55; -2 *SD* score = 3.33), followed by children who reported an average level of victimization (+2 *SD* score = 2.43; +1 *SD* score = 2.91; 0 *SD* score = 3.40; -1 *SD* score = 3.25; -2 *SD* score = 3.10). While the same general pattern was found for children who reported a high level of victimization, discrepancies between self-peer perceptions of victimization had a smaller impact on predicted global self-worth scores (+2 *SD* score = 2.62; +1 *SD* score = 2.82; 0 *SD* score = 3.03; -1 *SD* score = 2.95; -2 *SD* score = 2.88).



Table 23

*Summary of Hierarchical Regression Analyses for Self-Perceptions and Self-Other Discrepancies Predicting Global Self-Worth*

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher social acceptance					
Model 1a	.08*			3.41	
Direction				0.11*	.19
Magnitude				-0.20*	-.22
Model 1b	.11**			3.21	
Self-report (SR)				0.25**	.33
Model 2	.13**	.05*	.02	3.35	
SR				0.24*	.31
Direction				-0.01	-.03
Magnitude				-0.14	-.15
Model 3	.14*	.01	.01	3.30	
SR				0.29*	.38
Direction				-0.03	-.05
Magnitude				-0.04	-.05
SR·Direction				-0.06	-.13
SR·Magnitude				-0.03	-.07
Self-peer social acceptance					
Model 1a	.02			3.33	
Direction				0.02	.04
Magnitude				-0.12	-.12
Model 1b	.11**			3.21	
Self-report (SR)				0.25**	.33
Model 2	.15**	.13**	.04	3.26	
SR				0.37***	.48
Direction				-0.15*	-.26
Magnitude				-0.05	-.05
Model 3	.16**	.01	.01	3.22	
SR				0.31*	.40
Direction				-0.21*	-.36
Magnitude				0.04	.04
SR·Direction				-0.05	-.09
SR·Magnitude				0.08	.18

Table 23 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher academic acceptance					
Model 1a	.04			3.11	
Direction				0.11	.18
Magnitude				0.10	.10
Model 1b	.14***			3.21	
Self-report (SR)				0.28***	.37
Model 2	.17**	.13**	.03	3.02	
SR				0.36***	.47
Direction				-0.06	-.10
Magnitude				0.20	.19
Model 3	.21***	.04	.04	3.09	
SR				0.39**	.51
Direction				0.02	.03
Magnitude				-0.04	-.03
SR·Direction				0.20*	.29
SR·Magnitude				-0.06	-.11
Self-teacher behavioral conduct					
Model 1a	.11**			3.28	
Direction				0.20**	.33
Magnitude				-0.08	-.08
Model 1b	.18***			3.21	
Self-report (SR)				0.32***	.42
Model 2	.18***	.07***	.00	3.18	
SR				0.29**	.38
Direction				0.05	.08
Magnitude				0.02	.03
Model 3	.20**	.02	.02	3.21	
SR				0.33*	.44
Direction				0.14	.23
Magnitude				-0.09	-.09
SR·Direction				0.09	.15
SR·Magnitude				-0.10	-.20

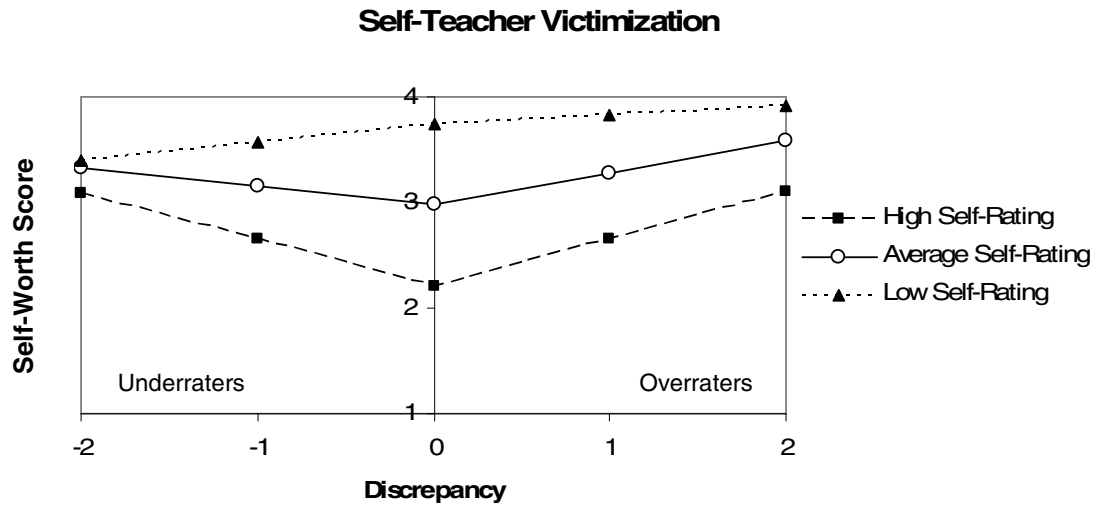
Table 23 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher victimization					
Model 1a	.05			3.29	
Direction				-0.11*	-.21
Magnitude				-0.08	-.10
Model 1b	.12***			3.21	
Self-report (SR)				-0.27***	-.35
Model 2	.14**	.09**	.02	3.05	
SR				-0.45**	-.59
Direction				0.13	.24
Magnitude				0.15	.18
Model 3	.21**	.07*	.07*	2.98	
SR				-0.76***	-1.00
Direction				0.07	.12
Magnitude				0.20	.24
SR·Direction				-0.06	-.15
SR·Magnitude				0.24**	.62
Self-peer victimization					
Model 1a	.09*			3.40	
Direction				-0.12*	-.22
Magnitude				-0.19*	-.21
Model 1b	.12***			3.21	
Self-report (SR)				-0.27***	-.35
Model 2	.13**	.04**	.01	3.30	
SR				-0.24*	-.32
Direction				0.00	.00
Magnitude				-0.10	-.11
Model 3	.21**	.08*	.08*	3.40	
SR				-0.37***	-.49
Direction				-0.17	-.30
Magnitude				-0.32*	-.35
SR·Direction				0.10	.22
SR·Magnitude				0.18	.43

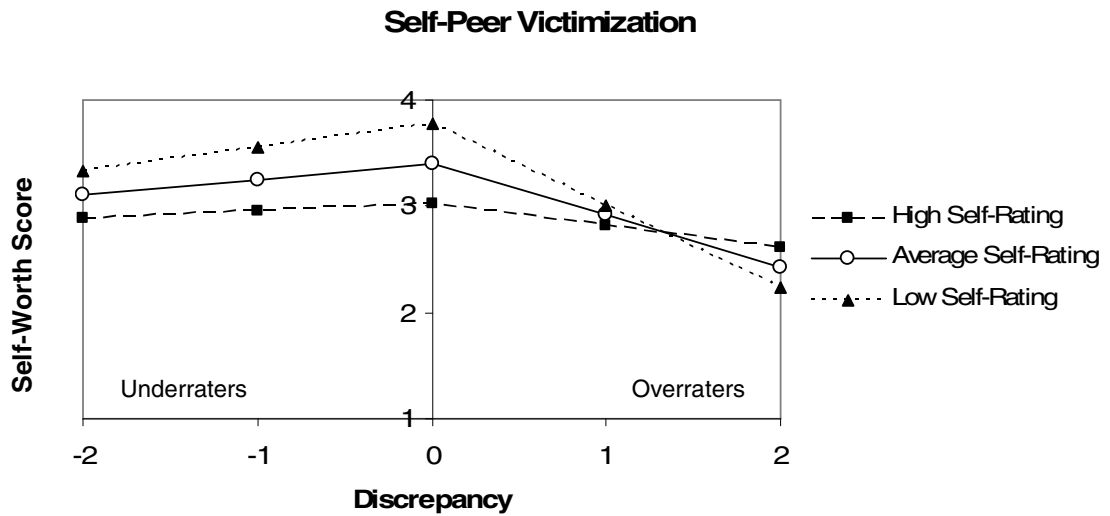
Table 23 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher bullying behavior					
Model 1a	.13**			3.36	
Direction				-0.16**	-.27
Magnitude				-0.17*	-.19
Model 1b	.10**			3.21	
Self-report (SR)				-0.25**	-.32
Model 2	.13**	.00	.02	3.32	
SR				-0.10	-.14
Direction				-0.12	-.19
Magnitude				-0.13	-.14
Model 3	.14*	.01	.01	3.23	
SR				-0.10	-.14
Direction				-0.14	-.23
Magnitude				-0.16	-.18
SR·Direction				0.02	.04
SR·Magnitude				0.01	.03
Self-peer bullying behavior					
Model 1a	.14**			3.41	
Direction				-0.17**	-.25
Magnitude				-0.26**	-.27
Model 1b	.10**			3.21	
Self-report (SR)				-0.25**	-.32
Model 2	.14**	.00	.04	3.37	
SR				-0.08	-.10
Direction				-0.13	-.20
Magnitude				-0.21	-.22
Model 3	.14*	.00	.00	3.38	
SR				-0.09	-.12
Direction				-0.16	-.24
Magnitude				-0.24	-.25
SR·Direction				0.01	.03
SR·Magnitude				0.03	.05

Notes.  $n = 99$ , except for self-teacher comparisons of social acceptance, academic competence, and behavioral conduct in which  $n = 98$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .



-2	-1	0	1	2	Self-Rating
3.09	2.65	2.21	2.65	3.10	High
3.33	3.15	2.98	3.28	3.59	Average
3.40	3.57	3.74	3.83	3.92	Low



-2	-1	0	1	2	Self-Rating
2.88	2.95	3.03	2.82	2.62	High
3.10	3.25	3.40	2.91	2.43	Average
3.33	3.55	3.77	3.01	2.24	Low

Figure 5. Impact of standardized discrepancies between self- and other-perceived victimization on global self-worth, as moderated by level of self-perceived victimization.

While no predictions were made regarding the predictive value self-perceptions and self-other discrepancies would have on self-reported anger, exploratory analyses were conducted and are presented in Table 24. When looking at the impact of self-other discrepancies independent of self-report, only one of the eight models was significant. Discrepancies between self-teacher perceptions of bullying behavior predicted anger scores. Within this model, magnitude of the discrepancy emerged as a unique predictor. Children who overrated their bullying behavior at the +2 *SD* level had higher predicted anger scores (T-score = 50.65) compared to overraters at the +1 *SD* level (T-score = 46.72), congruent raters (T-score = 42.79), and underraters (-1 *SD* T-score = 44.87; -2 *SD* T-score = 46.95). However, after accounting for the impact self-reported competence, victimization, and bullying behavior had on self-reported anger, none of the eight analyses showed a significant impact of self-other discrepancies on self-reported anger.

Table 24

*Summary of Hierarchical Regression Analyses for Self-Perceptions and Self-Other Discrepancies Predicting Self-Reported Anger*

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher social acceptance					
Model 1a	.01			44.49	
Direction				0.26	.04
Magnitude				0.77	.07
Model 1b	.02			45.29	
Self-report (SR)				-1.30	-.13
Model 2	.05	.04	.03	45.28	
SR				-2.92	-.30
Direction				1.74	.24
Magnitude				-0.01	.00
Model 3	.06	.01	.01	46.02	
SR				-3.50	-.36
Direction				2.23	.31
Magnitude				-1.63	-.14
SR·Direction				1.07	.17
SR·Magnitude				0.10	.02
Self-peer social acceptance					
Model 1a	.00			44.87	
Direction				0.42	.06
Magnitude				0.53	.04
Model 1b	.02			45.42	
Self-report (SR)				-1.33	-.13
Model 2	.05	.05	.03	45.46	
SR				-2.84*	-.29
Direction				1.74	.23
Magnitude				-0.03	.00
Model 3	.08	.03	.03	45.56	
SR				-0.76	-.08
Direction				3.06	.41
Magnitude				-0.39	-.03
SR·Direction				-0.21	-.03
SR·Magnitude				-2.42	-.42

Table 24 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher academic acceptance					
Model 1a	.02			45.30	
Direction				-1.14	-.14
Magnitude				-0.00	.00
Model 1b	.08**			45.30	
Self-report (SR)				-2.80*	-.29
Model 2	.09*	.07*	.01	46.15	
SR				-3.29*	-.33
Direction				0.48	.06
Magnitude				-0.89	-.06
Model 3	.11	.02	.02	46.21	
SR				-4.87*	-.50
Direction				-0.72	-.09
Magnitude				-0.91	-.07
SR·Direction				0.45	.05
SR·Magnitude				2.44	.33
Self-teacher behavioral conduct					
Model 1a	.03			45.15	
Direction				-1.25	-.16
Magnitude				0.16	.01
Model 1b	.06*			45.31	
Self-report (SR)				-2.33*	-.24
Model 2	.06	.03	.00	45.96	
SR				-2.50	-.25
Direction				0.94	.01
Magnitude				-0.71	-.06
Model 3	.07	.01	.01	46.60	
SR				-2.85	-.29
Direction				0.65	.08
Magnitude				-2.31	-.19
SR·Direction				1.10	.15
SR·Magnitude				-0.19	-.03



Table 24 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher victimization					
Model 1a	.03			45.04	
Direction				1.26	.18
Magnitude				0.37	.03
Model 1b	.05*			45.42	
Self-report (SR)				2.18*	.22
Model 2	.06	.03	.01	46.55	
SR				2.80	.28
Direction				-0.25	-.04
Magnitude				-1.06	-.10
Model 3	.07	.01	.01	48.19	
SR				5.56	.56
Direction				-1.36	-.20
Magnitude				-3.68	-.34
SR·Direction				1.58	.27
SR·Magnitude				-1.09	-.22
Self-peer victimization					
Model 1a	.06			43.19	
Direction				1.22	.15
Magnitude				2.21	.19
Model 1b	.05*			45.42	
Self-report (SR)				2.18*	.22
Model 2	.07	.01	.02	43.72	
SR				1.42	.14
Direction				0.40	.05
Magnitude				1.68	.14
Model 3	.10	.03	.03	44.12	
SR				3.49	.35
Direction				1.30	.18
Magnitude				0.95	.08
SR·Direction				0.97	.16
SR·Magnitude				-2.17	-.40

Table 24 (continued)

Model and predictors	$R^2$	$\Delta R^2$ a	$\Delta R^2$ b	$B$	$\beta$
Self-teacher bullying behavior					
Model 1a	.09*			42.79	
Direction				0.93	.12
Magnitude				3.01*	.26
Model 1b	.05*			45.42	
Self-report (SR)				2.31*	.23
Model 2	.09*	.00	.04	43.11	
SR				0.77	.08
Direction				0.59	.07
Magnitude				2.65*	.23
Model 3	.10	.01	.01	42.79	
SR				0.42	.04
Direction				1.02	.13
Magnitude				3.52	.30
SR·Direction				-0.71	-.12
SR·Magnitude				0.15	.03
Self-peer bullying behavior					
Model 1a	.05			44.34	
Direction				1.60	.19
Magnitude				1.27	.11
Model 1b	.05*			45.42	
Self-report (SR)				2.31*	.23
Model 2	.06	.01	.01	45.15	
SR				1.67	.17
Direction				0.78	.09
Magnitude				0.35	.03
Model 3	.08	.02	.02	46.08	
SR				3.97	.40
Direction				0.69	.08
Magnitude				-0.72	-.06
SR·Direction				0.83	.13
SR·Magnitude				-1.62	-.27

Notes.  $n = 99$ , except for self-teacher comparisons of social acceptance, academic competence, and behavioral conduct in which  $n = 98$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

## Chapter 5: Discussion

The current study examined self- and other-perceptions of competence, peer victimization, and bullying behavior as they relate to self-reported emotions in a sample of ethnically diverse second- and third-grade children. Four major findings emerged. First, self-perceptions of competence positively related to one another, and negatively related to self-perceptions of peer victimization and bullying behavior. Second, self-perceptions of competence, victimization, and bullying behavior were predictive of self-reported emotions. Third, teacher- and peer-ratings were more strongly correlated with one another than with self-ratings. Linked to this finding, self-reported victimization and bullying behavior were more highly predictive of self-reported competence, where teacher- and peer-reported victimization and bullying behavior were more highly predictive of teacher- and peer-reported competence. Fourth, self-perceptions were more strongly related to self-reported emotions than were discrepancies between self- and other-perceptions. However, the presence of interactions between self-perceptions and self-other discrepancies in a subset of the analyses underscores the value of taking other-perceptions into account in this line of research. These findings are discussed below in relation to past literature. The chapter concludes with an examination of the limitations of the study and provides suggestions for future research.

### *Relationships among Self-Perceptions*

Hypothesis 1 was supported. As predicted, self-perceptions of competence positively correlated with one another ( $r$  range = .22 to .30;  $p < .05$ ). The strength of the

correlations in the current study are in line with findings by Muris et al. (2003;  $r$  range = .21 to .36), though they are somewhat lower than expected based on the SPPC manual (Harter, 1985a;  $r$  range = .29 to .63), or based on what Schumann and colleagues reported (1999;  $r$  range = .27 to .48). The significant but relatively weak associations among self-perceptions of competence may be linked, in part, to the strength of the scales. The internal consistencies for the SPPC competence scales in the current study ( $\alpha$  range = .54 to .66) were lower than those listed in the SPPC manual ( $\alpha$  range = .74 to .82) or those listed by several independent studies (Hymel et al., 1999; Marsh & Holmes, 1990; Muris et al., 2003). Generally, disattenuated correlations that corrected for measurement error within the scales were notably stronger and more aligned with previous research than correlations that did not correct for measurement error.

It is unclear why the SPPC competence scales were not as internally consistent in the current study as in past research, though there are at least three possibilities. First, it is possible that the lower internal consistencies were an artifact of range restriction since the current study included only second- and third-grade children, where previous studies have typically included a wider age range of children. For instance, the alpha coefficients reported by Harter (1985a) and by Muris et al. (2003) were for combined samples of third- through eighth-grade children. Second, it is possible that the lower internal consistencies were related to the relatively young age of the sample. Results from Byrne and Schneider (1998) suggest that internal consistency among the SPPC scales increases with age ( $\alpha$  range = .72 to .80 in a sample of 129 fifth-grade children,  $\alpha$  range = .82 to .88 in a sample of 113 eighth-grade children). Third, the lower reliability estimates of the SPPC scales may be linked to the culturally diverse sample of children in the current

study. Since the vast majority of research in this area has focused on White middle-class samples of children, there is little research with which to compare this possibility.

However, Schumann and colleagues (1999) found weaker internal consistencies on the SPPC scales for a sample of African American girls compared to a sample of White girls. In addition, Cornell, Delcourt, Goldberg, and Bland (1995) found weaker factor loadings among the academic competence and social acceptance SPPC scales for a sample of gifted second- and third-grade African American children compared to a sample of gifted second- and third-grade White children.

While the internal consistencies of the SPPC competence scales were lower than expected, there were several indications that the scales still validly measured this sample's self-perceptions. First, the means and standard deviations of the scales were in line with previous research (see Tables 2 and 7 for a comparison). Second, the scales correlated with one another and with other variables in the expected directions. Third, disattenuated correlations were notably stronger than correlations that did not correct for measurement error and were in line with previous research ( $r$  range = .34 to .50).

Hypothesis 2 was partially supported. As predicted, the pattern of correlations indicates that higher self-perceived victimization and bullying behavior tend to accompany lower self-perceived social acceptance and behavioral conduct. The most highly related variables were behavioral conduct and bullying behavior. These findings are supported by the literature (Andreou, 2000, 2001; Austin & Joseph, 1996; Callaghan & Joseph, 1995; Mynard & Joseph, 1997; Neary & Joseph, 1994). The literature also supports the strength of correlations that were found between victimization and bullying behavior with social acceptance and behavioral conduct. However, self-reported

victimization and bullying behavior were not significantly related to self-reported academic competence as predicted. This was surprising since all of the studies located by this author that utilized these measures found significant relationships between self-reported victimization and bullying behavior with self-reported academic competence. Juvonen et al. (2000) conducted a relevant investigation focused on victimization in an ethnically diverse sample of middle school children in Los Angeles, California. Results of the study showed that self-reported victimization had little relationship to students' grade-point-average. While Juvonen and colleagues used an external indicator of academic competence rather than self-report as was used in the current study, their findings suggest that the relationship between victimization and academic competence may not be as strong as the relationship between victimization and other indicators of psychological functioning, particularly for ethnically diverse children.

It is interesting to note that the mean of the Peer Victimization Scale ( $M = 1.96$ ) and the mean and standard deviation of the Bullying Behavior Scale ( $M = 1.51$ ,  $SD = .57$ ) are somewhat lower in the current study than previous research that utilized these same measures. Past studies, which focused on children between the ages of 8 through 13, reported an average range of 2.14 to 2.52 for the Peer Victimization Scale, and an average range of 1.79 to 1.90 for the Bullying Behavior Scale ( $SD = .74$  to  $.92$ ; Andreou, 2000, 2001; Austin & Joseph, 1996; Callaghan & Joseph, 1995; Mynard & Joseph, 1997). These findings suggest that second- and third-grade children may report lower levels of victimization and bullying behavior, on average, than older elementary school children.

### *Relationships between Self-Perceptions and Self-Reported Emotions*

Among self-reported emotions, the pattern of correlations indicates that higher depression scores tend to accompany higher anxiety and anger scores, and lower global self-worth scores. Lower global self-worth scores also tend to accompany higher anger scores. The most strongly related emotion variables were global self-worth and depression. This is in agreement with past research which has consistently found a .7 to .8 correlation between global self-worth and depression (Harter, 1993).

The disattenuated correlations among the self-reported emotions were notably stronger for comparisons involving depression. This pattern is likely linked to the internal consistency of the depression scale, which had the lowest reliability estimate among the self-reported emotion scales ( $\alpha = .57$ ). The reliability estimate for the depression scale was lower in the current study than expected based on the CDI manual ( $\alpha = .80$ ; Kovacs, 1999). This may be due to the relatively young age of the sample or to range restriction as the CDI manual reports an alpha coefficient for a sample of second- through eighth-grade children, where only second- and third-grade children were included in the current study. The modest internal consistency for the CDI-S also may be due to the fact that the 10-items contained in the short form were taken from four distinct dimensions of the full inventory. The reliability estimates for the other three self-reported emotions scales were in line with their respective manuals. It is interesting to note that the global self-worth scale had the highest reliability estimate among the SPPC scales ( $\alpha = .75$ ). Harter (1985a) stated that children under the age of eight do not yet have a consolidated concept of self-worth, and therefore, would not be reliable reporters of their overall sense of self. The strength of the global self-worth scale in the current study suggests that second- and

third-grade children are capable of reporting a consolidated global self-worth using a one-on-one interview format, as suggested by Marsh and colleagues (1998).

As predicted in Hypothesis 3, the pattern of correlations indicates that lower self-reported competence and higher self-reported victimization and bullying behavior tend to accompany lower global self-worth scores. The literature review suggested that the most highly related dimension of competence with global self-worth would be social acceptance (Berndt & Burgoyne, 1996). This was not the case in the current study. The most highly related self-perceptions of competence with global self-worth were behavioral conduct and academic competence, both of which emerged as unique predictors of global self-worth in the regression analysis. This finding may be linked to the relatively young age of the participants in the current study compared to past research. Bohrnstedt and Felson (1983) argued that the feedback one receives about performance in some dimensions may be more ambiguous and less verifiable than feedback one receives in other dimensions. In particular, they suggested that feedback in the social domain is more ambiguous than feedback in other competence domains. It may be that performance in academics and behavioral conduct are more salient to young children compared to more socially-based dimensions due to the relatively unambiguous messages they receive regarding their academic and behavioral functioning, and therefore, these dimensions are more highly related to their overall sense of self. This possibility is underscored by the fact that the social acceptance scale was less internally consistent than were the academic competence and behavioral conduct scales.

Also predicted in Hypothesis 3, the pattern of correlations indicates that lower self-reported academic competence and behavioral conduct and higher self-reported



victimization tend to accompany higher depression scores, though social acceptance was not related to depression as expected. While not predicted, bullying behavior also was associated with higher depression scores. In addition, as predicted, lower self-reported social acceptance and higher self-reported victimization were associated with higher anxiety scores, though self-perceived academic competence and behavioral conduct were not related to anxiety as expected. In the regression analyses, the combined effect of self-perceptions significantly predicted self-reported depression and anxiety scores, and self-reported victimization emerged as a unique predictor in both analyses.

The different pattern of correlations that was found for self-reported depression and anxiety may be linked to a central distinction between these two emotions. Although depression and anxiety often co-exist in individuals, measures of depression tend to tap a more general maladjustment regarding how an individual feels about him or herself, where measures of anxiety tend to tap how an individual feels in certain social situations (Craig, 1998). An examination of the items within the depression and anxiety scales that were used in the current study demonstrates this difference. The depression scale included items such as, “I am sad,” “Nothing will not work out for me,” or “I hate myself.” The anxiety scale included items such as, “The idea of going away to camp scares me,” “Bad weather, the dark, heights, animals, or bugs scare me,” or “I get nervous if I have to perform in public.” Given this difference, it is perhaps not surprising that depression was more strongly correlated with individually-based competence (academic, behavioral), and anxiety was more strongly correlated with socially-based competence (social acceptance).

Although specific predictions regarding self-reported anger were not made, the pattern of correlations indicates that higher anger scores tend to accompany lower self-reported academic competence and behavioral conduct, and higher self-reported victimization and bullying behavior. In the regression analysis, self-perceptions in combination predicted self-reported anger, and lower self-perceived academic competence emerged as a unique predictor. While this author was not able to locate previous research that looked specifically at the connection between academic competence and anger, Muris et al. (2003) reported that lower self-reported academic competence was related to parent-reported externalizing behavior difficulties, an arguably related construct. The strong connection between academic competence and feelings of anger may be linked to children's frustration tolerance. Past studies have shown that the ability to tolerate difficult situations without getting overly frustrated or losing self-control positively relates to academic competence and task orientation (Bowman, Barnett, Johnson, & Reeve, 2006; Humphrey, 1982; Kundu & Basu, 1991). Although the current study utilized the total score on the ChIA (Nelson & Finch, 2000) as the measure of self-reported anger, the ChIA also specifically measures frustration, defined as anger that youngsters experience when they encounter obstacles, are interrupted in an activity, or are prevented from gratifying a desire. The total score and the frustration subscale are highly correlated with one another (ChIA manual  $r = .87$ ; current study  $r = .90$ ). It makes sense that academic progress would be impeded in children who become easily frustrated because they would be more likely to give up when academic tasks become difficult.

Taken together these results show that self-perceived victimization was uniquely predictive of self-reported depression and anxiety scores, self-perceived academic

competence and behavioral conduct were uniquely predictive of global self-worth scores, and self-perceived academic competence was uniquely predictive of self-reported anger scores. This study is valuable to the literature because it simultaneously examined the impact of self-perceptions on a variety of self-reported emotions. Past research has consistently shown significant relationships between self-perceived competence with depression, anxiety, and global self-worth (McGrath & Repetti, 2002; Muris et al., 2003), between victimization with depression and global self-worth (Andreou, 2001; Austin & Joseph, 1996; Callaghan & Joseph, 1995; Neary & Joseph, 1994), and between bullying behavior with global self-worth (Austin & Joseph, 1996). However, past studies have typically looked at the relationship of these variables in isolation, rather than simultaneously. Looking across these variables in the same study provided a clearer look at the combined impact self-perceptions may have on self-reported emotions.

#### *Congruence between Self-Perceptions and Other-Perceptions*

Hypothesis 4 was generally supported. Teacher- and peer-perceptions were more strongly related to one another than to self-perceptions. Among the competence dimensions, self-perceptions of social acceptance were not significantly related to teacher- or peer-perceptions, though teacher- and peer-perceptions were significantly correlated with one another in a positive direction. Among the victimization and bullying behavior dimensions, all three pairs of ratings were positively correlated for bullying behavior, but only teacher- and peer-ratings were significantly related for victimization. Although peer-perceptions of academic competence and behavioral conduct were not measured, it is important to note that self- and teacher-perceptions regarding these two dimensions positively correlated in a significant manner. These findings are in line with

past research (Cole, 1991a; Schuster, 1999; Warden, Cheyne, Christie, Fitzpatrick, & Reid, 2003). Ladd and Kochenderfer-Ladd (2002) stated that stronger agreement between teachers and peers would be expected since they are in a position to observe children in the same settings, where self-ratings are prone to differences from others' ratings due to intrapsychic and emotional influences.

Although an examination of the correlations supports Hypothesis 4, when significance tests were conducted for differences between dependent correlations, bullying behavior was the only dimension where teacher-peer agreement was significantly stronger than both self-teacher and self-peer agreement. Within the peer victimization dimension, teacher-peer agreement was significantly stronger than self-teacher agreement, but was not significantly stronger than self-peer agreement. Within the social acceptance dimension, none of the self-other correlations were significantly different from one another. These findings can be explained, in part, by the strength of correlations within pairs of raters. There was significantly stronger agreement across all three pairs of raters for perceptions of bullying behavior compared to perceptions of social acceptance or victimization.

It is important to note that correlations across self-other perceptions in the current study were generally lower than have been found in past research, particularly in the social acceptance and peer victimization dimensions. There are three potential reasons for the relatively low correlations. First, the variables included in the study across self- and other-perceptions were taken from different measurement instruments. Past research that has examined both self- and other-perceptions has often utilized different versions of the same measure, most commonly the self- and teacher-versions of the SPPC (Harter,

1985a). Using scales from different measurement instruments may have made comparisons less direct, though the scales are closely related to one another conceptually. Linked to this possibility, much of the research that has examined the relationship between self- and other-perceptions has utilized inferred self-concept ratings (Marsh, 1990; Marsh & Craven, 1991; Marsh et al., 1998). Inferred self-concept ratings involve asking others to make judgments based on how they think the individual in question views himself or herself. In contrast, the current study asked others how they view the individual in question. It is possible that inferred self-concept ratings are more highly related to children's self-concept ratings compared to ratings that appraise children based on the other person's viewpoint.

Second, the age of the sample may have been a factor in the relatively low self-other correlations. Marsh et al. (1998) found lower agreement between self-other views in a sample of kindergarten through second-grade children compared to a similar study conducted with a sample of third- through sixth-grade children (Marsh & Craven, 1991). Cole et al. (1997) also found a stronger relationship between self-other views in sixth-grade children compared to third-grade children. Cole and colleagues concluded that older children have had more time to assimilate the impressions of others and have more highly developed social-cognitive skills compared to younger children.

Third, the ambiguity of certain self-concept dimensions may have been a factor in the relatively low self-other correlations. Past research has found stronger self-other agreement for academic competence and behavioral conduct compared to social acceptance (Cole, 1991a; Hymel et al., 1999), and stronger self-other agreement for bullying behavior compared to peer victimization (Warden et al., 2003). As previously

discussed, Bohrnstedt and Felson (1983) suggested that feedback in the social domain is more ambiguous than feedback in other competence domains. Hymel and colleagues examined the sources of information which children claimed to utilize in evaluating their competence and found support for this argument. In academic and athletic domains, children most often relied on direct sources of information, such as grades, test scores, winning, or losing. In the social domain, children relied almost exclusively on less direct and more inferential sources of information, such as positive and negative behavior. De Los Reyes and Prinstein (2004) pointed out that moderate self-other agreement for victimization also may be due to the fact that others rarely have access to all peer victimization encounters. Regarding the stronger self-other agreement for bullying behavior compared to social acceptance or victimization, it is possible that bullying is a more “public” phenomenon, and therefore, agreement among sources is easier to obtain. The implication of these findings is that other-perceptions appear to be more useful in determining social reputation and self-perceptions appear to be more useful in determining how an individual feels about his or her functioning, although as we will see later in this discussion, discrepancies between self- and other-perceptions are a potentially valuable indicator of children’s emotions.

The current study also examined the predictive value of self- and other-perceptions of victimization and bullying behavior on self- and other-perceptions of competence. As predicted in Hypothesis 5, self-perceptions of victimization and bullying behavior, compared to other-perceptions, more strongly predicted self-perceptions of competence. Other-perceptions of victimization and bullying behavior, compared to self-perceptions, more strongly predicted other-perceptions of competence. Within the peer

victimization analyses, self-reported victimization emerged as a unique predictor of lower self-reported social acceptance and behavioral conduct, where teacher- and peer-reported victimization emerged as unique predictors of lower teacher- and peer-reported social acceptance. In addition, higher peer-reported victimization was uniquely predictive of teacher-reported behavioral conduct. These findings are in line with past research (Graham et al., 2003; Graham & Juvonen, 1998). Ladd and Kochenderfer-Ladd (2002) argued that self- versus other-reported victimization tap different aspects of victimization, and therefore, are linked to different indicators of adjustment. Self-reported victimization taps children's subjective appraisals of victimization so it is more likely to relate to intrapersonal indicators of adjustment, where other-reported victimization taps children's reputation as victims so it is more likely to relate to external indicators of adjustment.

Similarly, self-reported bullying behavior emerged as a unique predictor of lower self-reported social acceptance and behavioral conduct, where teacher- and peer-reported bullying behavior were unique predictors of lower teacher-reported behavioral conduct. In addition, while not statistically significant, the data suggest that teacher- and peer-reported bullying behavior were related to self-reported behavioral conduct (teacher-rated  $t = -1.95, p = .054$ ; peer-rated  $t = 1.92, p = .058$ ). What is particularly interesting about this pattern is that there was a negative relationship between teacher-rated bullying behavior and self-rated behavioral conduct, but a positive relationship between peer-rated bullying behavior and self-rated behavioral conduct. This pattern may be linked to previous research which showed that bullies often receive positive feedback regarding their behavior, at least from a subset of their peers (Cairns et al., 1988; Olweus, 2001). Future research is needed to see if this pattern is found in other samples of children. The

model examining the predictive value of perceptions of bullying behavior on peer-perceptions of social acceptance was significant, but a unique predictor did not emerge. This finding suggests that no single informants' reports of bullying behavior proved to be the best estimator of peer-reported social acceptance, and thus, argues for the inclusion of multiple informants in this line of research.

### *Discrepancies between Self-Other Perceptions and Self-Reported Emotions*

The notion that children's self-perceptions are largely a reflection of significant others' evaluations was put forth in the early writings of symbolic interactionists (Baldwin, 1897; Cooley, 1902; Mead, 1934). From this perspective, differences between self-perceptions and other-perceptions were not viewed as important. However, more recent research has begun to examine the discrepancy between self- and other-ratings as a meaningful variable in its own right. Very few studies have examined this issue in children. The studies that have been conducted suggest that children who underrate their competence or overrate their victimization relative to other-perceptions are more likely to experience negative emotions than their peers (Cole et al., 1998; Connell & Ilardi, 1987; Graham et al., 2003; Harter, 1985b; Hoffman et al., 2000). In addition, there is controversy, particularly in the adult literature, regarding the adaptability of overrating one's self relative to others' perceptions. The few studies that have examined this issue in children suggest that children who overrate their competence and underrate their victimization are less likely to experience negative emotions than their peers (Brendgen et al., 2004; Connell & Ilardi, 1987; Graham et al., 2003; Harter, 1985b). Many of these studies examined only competence or victimization, and typically looked at the impact of overrating or underrating relative to others' perceptions on only one measure of emotion.



The current study extended this research by simultaneously examining this issue across a wider variety of dimensions and emotions than had been previously examined.

The manner in which the analyses were conducted was also an advantage over past research in two ways. First, past research has typically taken the self-other discrepancy score and separated children into groups (e.g., overraters, congruent raters, underraters). In other words, past studies have examined an artificially imposed magnitude of the discrepancy. The current study kept the discrepancy variables on a continuum, which allowed for an examination of direction as well as various magnitudes of self-other discrepancies ( $-2 SD$ ,  $-1 SD$ ,  $0 SD$ ,  $+1 SD$ ,  $+2 SD$ ). Second, past research has generally failed to take into account the impact self-perceptions have in combination with self-other discrepancies. This is a gap in the literature since self-perceptions and self-other discrepancies both have been tied to self-reported emotions when looked at in isolation. The current study examined self-perceptions and self-other discrepancies in the same analyses in order to simultaneously assess the relative impact they had on self-reported emotions.

In many of the analyses, examining the relationship between self-other discrepancies and self-reported emotions without taking into account self-perceptions would have lead to an erroneous conclusion regarding the degree to which overrating and underrating ones' self relative to teacher- and peer-perceptions was linked to self-reported emotions. For example, when predicting the impact of self-other discrepancies on global self-worth without taking self-report into account, one may reasonably conclude that children who underrated their social acceptance and behavioral conduct relative to teacher-perceptions had a lower global self-worth compared to their peers,

where children who overrated their social acceptance and behavioral conduct had a higher global self-worth compared to their peers. This pattern partially supports Hypothesis 6, which stated that children who underrated their competence relative to other-perceptions would report higher depression and anxiety scores and lower global self-worth scores, while the opposite pattern was predicted for children who overrated their competence. However, after accounting for the relationship between self-perceptions of competence and global self-worth, self-other discrepancies did not significantly impact global self-worth scores.

Similarly, when predicting self-reported anxiety, the self-other discrepancy variables in isolation showed that overrating one's victimization relative to teacher- and peer-perceptions related to higher self-reported anxiety scores. Overrating one's victimization relative to teacher-perceptions also related to higher depression scores and lower global self-worth scores. This pattern supports Hypothesis 7, which stated that children who overrated their victimization relative to other-perceptions would report higher depression and anxiety scores, and lower global self-worth scores. In addition, although no specific predictions were made regarding self-other discrepancies of bullying behavior, results showed that children who overrated their bullying behavior relative to teacher- and peer-perceptions reported lower global self-worth scores. Children who overrated their bullying behavior relative to teacher-perceptions also reported higher anxiety and anger scores. However, after accounting for the relationship between self-perceptions and self-reported emotions, self-other discrepancies of victimization and bullying behavior had a significant impact on self-reported emotions in only one analysis: children who overrated their bullying behavior relative to teacher-perceptions reported

higher anxiety scores. In all of the other models, self-reported victimization and bullying behavior, not self-other discrepancies, had the most significant impact on emotions.

On the other hand, there were instances where examining the relationship between self-perceptions and self-reported emotions without taking into account self-other discrepancies would not have told the full story. Among the thirty-two regression analyses that were conducted (eight self-other comparisons for each of the four self-reported emotions), seven models demonstrated a significant interaction between self-perceptions and self-other discrepancies when predicting self-reported emotions. Six of the seven interactions illustrated a similar pattern. While it was predicted that children who underrated their social competence or overrated their victimization would report higher anxiety and depression scores and lower global self-worth scores, results showed that the relationship between self-other discrepancies and self-reported emotions was moderated by level of self-report (high, average, low). Regarding self-reported anxiety, the predicted pattern was found for children who underrated their social acceptance relative to teacher- and peer-perceptions who also reported a high or average level of social acceptance, while self-other discrepancies had little impact on self-reported anxiety scores for children who rated a low level of social acceptance. Similarly, children who underrated their academic competence relative to teacher-perceptions who also reported a high level of academic competence had higher predicted anxiety scores than congruent rater or overraters. Regarding depressive symptoms, children who overrated their victimization relative to teacher-and peer-perceptions who also reported a low or average level of victimization had higher predicted depression scores than congruent raters or underraters, while self-other discrepancies had little impact on self-reported depression

scores for children who reported a high level of victimization. Likewise, regarding global self-worth, children who overrated their victimization relative to teacher- and peer-perceptions who also reported a low or average level of victimization had predicted global self-worth scores that were lower than congruent raters or underraters, while self-other discrepancies had little impact on global self-worth scores for children who reported a high level of victimization. In many of the interactions, the magnitude of the discrepancy also played a significant role. In agreement with Higgins (1987), discrepancies of greater magnitude generally increased the negative impact on self-reported emotions.

The pattern among the interactions described above is important in two ways. First, the pattern suggests that congruence of self-other perceptions has little impact on self-reported emotions for children who report low competence or high victimization. Second, the pattern suggests that children who report high competence or low victimization may still be at risk for experiencing negative emotions when their perceptions are unfavorable relative to other-perceptions, particularly as the magnitude of the discrepancy increases.

Addressing the children who reported low competence or high victimization first, self-reported emotions for these children appear to be primarily linked to their self-perceptions independent of how others perceive them. We know from earlier analyses that self-reported social acceptance negative correlated with anxiety ( $r = -.24; p < .05$ ), and that self-reported victimization positively correlated with depression ( $r = .33; p < .01$ ) and negatively correlated with global self-worth ( $r = -.35; p < .001$ ). Children who view these areas as weaknesses appear to experience more negative emotions regardless of

how others perceive them. This interpretation is supported by results of Hoffman and colleagues (2000) who found that negative self-appraisals predispose children to self-reported depression whether or not such appraisals agree or disagree with others' appraisals.

An exception to the general pattern describe above occurred in the self-teacher analysis of academic competence predicting anxiety, where children who reported low academic competence who also overrated their academic competence relative to teacher-perceptions had higher predicted anxiety scores compared to congruent raters or underraters. This pattern was also found by Connell and Ilardi (1987). When self-other discrepancies were examined independent of self-report, Connell and Illardi found that children who overrated their academic competence relative to teacher-report had lower self-reported anxiety. However, this finding disappeared when level of children's self-reported academic competence was taken into account, and in fact, overraters actually reported more school-related anxiety than did underraters in the face of perceived failure. Perhaps a subset of children who know they are not doing well academically overrate their competence because it is a highly valued dimension to them or as a defense mechanism to protect a fragile self-system (Edens, 1999), yet they feel anxious because they know through social comparison that they are not doing as well as their peers. This may be the case for academic competence and not social acceptance or victimization since there is evidence that academic competence is easier to verify through external indicators compared to socially-based domains (Cole, 1991a; Hymel et al., 1999; Marsh & Craven, 1991). Another possibility is that these are the children who are doing most poorly academically, yet teachers are not sharing with them the full extent of their

difficulties for fear that it would be demoralizing. If this is the case, these children are falsely overrating their academic competence relative to teacher-perceptions, though they are basing their perceptions on available feedback. Having data regarding actual grades and/or performance on standardized tests would help clarify this pattern.

As previously stated, the pattern of interactions between self-report and self-other discrepancies is also important because it suggests that children who report high competence or low victimization may still be at risk for experiencing negative emotions when their perceptions are not congruent with the perceptions of others. Children who reported high competence, yet who underrated their competence relative to teacher- and peer-perceptions, had higher predicted anxiety scores. Children who reported low victimization, yet who overrated their victimization relative to teacher- and peer-perceptions, had higher predicted depression scores. Children who reported low victimization, yet who overrated their victimization relative to peer-perceptions, also had lower predicted global self-worth scores. This pattern may be linked to a combined effect of the Jamesian discrepancy model (1890, 1892), which deals with intraindividual discrepancies rather than interindividual discrepancies, and the symbolic interactionist viewpoint (Cooley, 1902; Mead, 1934), which argues that others' appraisals will impact how individuals see themselves, and subsequently how they feel about themselves.

According to James (1890, 1892), and later theorists such as Rogers (1951), Higgins (1987), and Markus and Wurf (1987), people develop self-representations of their actual attributes, termed the *real* self-concept, and they develop self-representations for what they want to be or feel they ought to be, termed the *ideal* or *desired* self-concept. The ideal self-concept, in turn, influences an individual's motivation and sets behavioral

standards. As pointed out by Harter (1999), the implication of discrepancies between real and ideal selves is important since failure to achieve one's ideals may result in anxiety, depression, and low global self-worth. In Rogers' and Higgins' view, the magnitude of real-ideal discrepancies is a primary index of maladjustment. James' theory and empirical studies that have tested his theory also suggest that the impact of real-ideal discrepancies on maladaptive outcomes is moderated by how important a particular domain is to an individual (Harter, 1999). A real-ideal discrepancy in a domain that is not valued has less of an impact on adjustment than a real-ideal discrepancy in a domain that is highly valued. Similarly, Markus and Wurf argued that some self-perceptions are central or core conceptions, while others are more peripheral. It is plausible that domains in which children feel relatively competent are more highly valued or central to how they perceive themselves compared to domains in which they do not feel competent. This would help explain the findings in the current study as individuals may be striving for perfection in domains in which they view themselves as relatively competent. This viewpoint is supported by the literature on gifted students, which has shown a connection between perfectionism and a vulnerability to experience negative emotions such as anxiety, depression, and low global self-worth (Kwan, 1992; Schuler, 2000).

The above argument provides an intrapersonal explanation for why children who report high competence or low victimization may still experience negative emotions. However, there is an interpersonal component that must be accounted for given the interaction between self-report and self-other discrepancies that was found in the current study. The question becomes, how does congruence of self-other perceptions factor into this process? According to symbolic interactionists (Baldwin, 1897; Cooley, 1902; Mead;

1934), significant others construct a social mirror, referred to as the looking-glass-self, which the individual gazes into to detect others' opinions of the self. These opinions become incorporated into one's own sense of self, though this internalization process takes time and there is a period in which the individual will try to accommodate his or her perceptions and behaviors to be more in line with others' perceptions. It is possible that others' perceptions that are more favorable than children's perceptions during this time period factor into children's ideal self rather than their real self. In this case, high achieving children who still underrate themselves relative to others' perceptions may feel that they are competent, yet not as competent as they should be. The feeling of not living up to their ideal self, which has incorporated others' favorable perceptions, would in turn, make them vulnerable to anxiety, depression, and low global self-worth (Harter, 1999; Higgins, 1987). This vulnerability would be particularly strong for individuals who feel the support and approval they receive from others is contingent on living up to others' expectations (Harter, Stocker, & Robinson, 1996), and would increase as the magnitude of the discrepancy increases (Higgins). Using Jamesian theory and symbolic interactionist theory in combination to explain the pattern of interactions in the current study fits Harter's belief that the self is both a cognitive and social construction and that examining both processes provides a more powerful explanation of the self than examining either process in isolation. Combining the theories also fits Markus and Wurf's (1987) contention that there are intrapersonal and interpersonal processes that influence an individual's sense of self.

As discussed above, a similar pattern was found in six of the seven significant interactions regarding the relative of impact self-perceptions and self-other discrepancies



on self-reported emotions. The self-teacher analysis of victimization predicting global self-worth did not follow the same pattern. For children who reported a high or average victimization, congruent raters had lower predicted global self-worth scores compared to underraters and overraters. For children who reported low victimization, underraters had the lowest predicted global self-worth scores while overraters had the highest predicted global self-worth scores. It is not clear why this interaction demonstrates a different pattern than those previously discussed, particularly from the self-peer analysis of victimization predicting global self-worth. However, Harter (1999) presented evidence that the opinions of significant others, namely parents, teachers, and peers, differentially impact children's global self-worth based on the support one receives from significant others in the form of validation or approval. The pattern described above may be seen for teachers and not for peers since teachers are more likely than peers to intervene during instances of victimization (Snell, MacKenzie, & Frey, 2002), which in turn, may confirm a child's perception that he or she is a victim and lower his or her global self-worth. Further research is needed to see if this pattern is present in other samples of children.

Two variables were included in the study for exploratory purposes: self-reported anger and perceptions of bullying behavior. These variables were included because they are theoretically linked to the other variables in the study, though no predictions were made for them as they have typically not been included in this line of research. Regarding self-reported anger, no significant findings regarding self-other discrepancies were found after the impact of self-report had been taken into account. This indicates that congruence of self-other perceptions is more strongly linked to internally directed emotions, rather than externally directed emotions.

Regarding bullying behavior, only one significant finding between self-other discrepancies and self-reported emotions was found. Children who underrated their bullying behavior relative to teacher-perceptions had lower predicted anxiety scores, while children who overrated their bullying behavior relative to teacher-perceptions had higher predicted anxiety scores. This finding is difficult to draw firm conclusions about since this author was unable to locate previous research that directly examined the relationship among these variables. However, there is evidence that aggressive children are less tuned into environmental feedback compared to nonaggressive children (Zabriski & Coie, 1996), which may help account for the discrepant self-other views. In addition, this finding may be linked to differences between proactive and reactive aggression. Proactively aggressive children, or bullies as they are sometimes called, tend to bully as a means of goal acquisition, social dominance, or coercion (Edens, 1999). Reactively aggressive children, or bully-victims as they are sometimes called, tend to bully in reaction to emotional arousal in an attempt to protect oneself from real or perceived threats. There is evidence that bully-victims experience more peer rejection than bullies or non-bullied children (Veenstra et al., 2005), and that they experience more negative emotions, including higher levels of anxiety (Craig, 1998; Schwartz, 2000). It is possible that those who underrated their bullying behavior in the current study are proactively aggressive children, while children who overrated their bullying behavior in the current study are reactively aggressive children. Further research is needed to see if this finding can be replicated, and if so, elucidate how and why self-other discrepancies of bullying behavior are connected to children's emotions.

## Conclusions

Results of the current study provide further evidence that young children's self-concepts are multidimensional, yet meaningfully related to one another. Self-perceptions of competence positively correlated with one another, and negatively correlated with self-perceptions of peer victimization and bullying behavior. In addition, contrary to Harter's (1985a) contention that young children are not able to form a consolidated concept of self-worth, results of the study indicate that second- and third-grade children are able to reliably report their global self-worth using one-on-one interviews as recommended by Marsh and colleagues (1998). However, the self-reported competence scales and the self-reported depression scale in the current study had lower internal consistencies than have been reported in past research. It is possible that the lower internal consistencies are linked to the young age of the sample or to the ethnically diverse makeup of the sample. Children's responses on these scales were still believed to be valid indicators of children's self-perceptions since the means and standard deviations of the scales aligned with past research, and since the scales correlated with one another and with external sources of information in theoretically meaningful ways.

Regarding the relationship between self- and other-perceptions of competence, victimization, and bullying behavior, teacher- and peer-perceptions were more strongly related to one another than to self-perceptions. This was particularly true for perceptions of bullying behavior, and to a lesser extent, perceptions of peer victimization. These findings suggest that there is generally less agreement between self- and other-perceptions when the attribute in question is less amenable to direct observation. In addition, results of the current study support previous research that showed that self-

perceptions of victimization and bullying behavior are more highly predictive of self-reported competence, where teacher- and peer-perceptions of victimization and bullying behavior are more highly predictive of teacher- and peer-reported competence (Cole, 1991a; Schuster, 1999; Warden et al., 2003). It is important to acknowledge the role shared variance may have played in these findings since the most highly related dimensions occurred within raters. However, there is a theoretical argument that grounds these findings as well. As previously mentioned, Ladd and Kochenderfer-Ladd (2002), pointed out that stronger agreement between teachers and peers would be expected since they are in a position to observe children in the same settings, where self-ratings are prone to differences from others' ratings due to intrapsychic and emotional influences.

Self-perceptions were more strongly related to self-reported emotions than were other-perceptions. This study is unique in that it simultaneously assessed the impact a wide variety of perceptions had on a wide variety of emotions, thus providing a clearer picture about which perceptions may have the greatest impact on specific emotions. Within self-perceptions, correlational analyses indicate that depression and global self-worth are related to a wider variety of self-perceptions compared to anxiety, which was most highly related to deficits in socially-based dimensions. In addition, regression analyses showed that peer victimization was uniquely predictive of self-reported depression and anxiety scores, academic competence was uniquely predictive of self-reported anger scores, and academic competence and behavioral conduct were uniquely predictive of global self-worth scores. Conversely, there was virtually no relationship between teacher- and peer-perceptions and self-reported emotions.

Results of the study also showed that self-perceptions were more strongly related to self-reported emotions than were discrepancies between self- and other-perceptions. Of the 32 regression analyses that examined this issue, 24 demonstrated a significant relationship between self-perceptions and self-reported emotions. In contrast, only 10 of the analyses found a significant relationship between self-other discrepancies and self-reported emotions and, as previously stated, 2 of those findings disappeared once the impact of self-report had been accounted for, and 7 of those findings were moderated by level of self-report. The presence of the significant interactions, however, demonstrates the value in examining both self-perceptions and self-other discrepancies when predicting self-reported emotions. The consistent pattern that was found among the interactions is important in two ways. First, the pattern suggests that congruence of self-other perceptions has little impact on self-reported emotions for children who report a low level of competence or a high level of victimization. Negative self-appraisals appear to predispose children to negative emotions whether or not such appraisals agree or disagree with others' appraisals. Second, the pattern suggests that children who report a high level of competence or low level of victimization may still be at risk for experiencing negative emotions when their appraisals are unfavorable relative to others' appraisals. This vulnerability generally increased as the magnitude of the discrepancy increased.

Within the self-other discrepancy findings, there was more evidence to support a maladaptive impact of *unfavorable* self-other appraisals than was found to support an adaptive impact of *favorable* self-other appraisals. In other words, results of the study generally failed to provide evidence that "positive illusions," as they are often referred to in the adult literature, have a positive impact on children's emotions. Once the

relationship between self-perceptions and self-reported emotions had been accounted for, only two analyses showed more adaptive emotional functioning for children who had rated themselves favorably relative to other-perceptions. First, children who underrated their bullying behavior relative to teacher-perceptions had lower predicted anxiety scores compared to their peers. Second, children who overrated their academic competence relative teacher-perceptions, who also reported a high level of competence, had lower predicted anxiety scores compared to their peers. Given the paucity of research in this area, particularly with children, future research is needed before firm conclusions can be drawn regarding these findings.

Results of the current study have implications for assessing children's self-systems. First, the lower internal consistencies of the self-reported competence scales and self-reported depression scale relative to past research indicates that care should be taken when using these scales with younger populations of children who are also ethnically diverse to ensure that they are adequately measuring the domains in question. Second, self- and other-perceptions provided unique information and should both be assessed when trying to determine the impact functioning in these dimensions has on children's emotions. Neither should be considered the "gold standard" as argued by De Los Reyes and Prinstein (2004), although they each appear to be useful for answering different questions. Others' appraisals appear to provide more accurate information on social reputation. Self-appraisals appear to provide more accurate information regarding how a child feels about himself or herself, particularly if the child reports low competence or high victimization. For these children, it may not be necessary to assess others' perceptions in order to gauge the emotional impact of self-appraisals. For other children,

namely those who report high competence or low victimization, examining self- and other-perceptions in combination appears to paint the clearest picture regarding their emotional functioning.

Results of the current study have implications for intervention. First, functioning in socially-based dimensions, namely social acceptance and peer victimization, had the greatest impact children's emotions. It is imperative to identify children who are experiencing social difficulty so that interventions aimed at decreasing self-defeating thoughts and increasing social skills can be implemented. Second, it may be necessary to intervene with children even if they report having high competence or low victimization, as many of these children may still be experiencing negative emotions when their self-appraisals are unfavorable compared to significant others' appraisals. Third, having a clear understanding of self- and other-appraisals across various self-concept dimensions informs how best to target interventions. Over the past few decades, there has been a trend toward implementing programs in schools designed to increase children's self-concepts. However, rather than implementing interventions that are vaguely targeted at increasing children's self-concepts, it may be that a particular dimension is more important to target than others depending on the profile of a specific individual. Harter and Marold (1994) pointed out that the profile of self-evaluations may highlight areas where skills training can take place. Furthermore, it may be beneficial to redirect a student's investment from a domain in which there is little competence and little potential to improve, to a domain in which the student can be more successful. Assessing the relative importance of the dimensions to the individual would be useful in this process.

### Limitations of the Study and Future Directions

The current study utilized archival data. This limited the comparisons that could be made. For instance, there was no peer-reported measure of academic competence or behavioral conduct in the data set. In addition, the variables included in the study, particularly across self- and other-perceptions, were taken from different measurement instruments. Past research that has examined congruence of self-other perceptions has often utilized different versions of the same measure. While using scales from different measurement instruments may have made comparisons less direct, the scales are related to one another conceptually. In fact, the combination of variables included in the study could be viewed positively, as previously argued, since their inclusion provided an opportunity to perform a conceptual replication of previous findings with different scales that were validated to provide data on other-perceptions.

The current study utilized data collected at one point in time. Therefore, results of this study should be viewed as correlational rather than causal. The direction of influence is relevant to both a Jamesian model and a looking-glass-self model; both presume that perceptions of self and others are determinants of affective functioning. However, Harter (1999) pointed out that statistical modeling procedures applied to group data collected at one point in time do not necessarily simulate the psychological processes underlying the developmental path that occurs between the perceptions of self and others. Often, reversing the order of the components will provide just as adequate a fit to the data. There is also contradictory evidence among longitudinal studies regarding the direction of self- and other-perceptions with self-reported emotions (Cole et al., 1999; Graham et al., 2003; Hoffman et al., 2000). Furthermore, Harter et al. (1996) provided evidence that the



developmental path may vary for different individuals depending on the importance they place on others' approval. Most likely the relationship between these variables is bidirectional in nature, and to some extent, dependent on which dimension is being assessed, the abilities and temperament of the individual, and the developmental stage of the individual. While issues of direction may be theoretically interesting, the purpose of the current study was not to establish causality, but rather to examine the relationship between self- and other-perceptions across a wider set of self-concept dimensions and emotions than had been previously examined.

The sample in the current study was unique in two ways compared to past research. The sample was relatively young and the sample was ethnically diverse. This made it difficult to tease apart whether age or diversity was linked to findings, particularly for findings that differed from past research. For instance, the alpha coefficients for the self-reported competence dimensions were lower than reported by the SPPC manual (Harter, 1985a). Past research suggests that this may be linked to both the age and diversity of the current sample. Future research is needed across age groups with diverse samples of children, preferably with sample sizes that are large enough to segment participants into distinct age and ethnicity groups.

This study examined the relative impact self-report and self-other discrepancies had on self-reported emotions. Since past research has typically not included self-report in this manner, it is difficult to draw firm conclusions regarding the interactions that were found between self-perceptions and self-other discrepancies when predicting self-reported emotions. Well-established theories were drawn on to present a possible explanation for the pattern. One theory focused on potential intrapersonal influences; the

relative importance of dimensions to the individual (Harter, 1999; James, 1890, 1892; Markus & Wurf, 1987). Another theory focused on interpersonal influences; how perceptions of others are integrated into the real and ideal selves (Baldwin, 1897; Cooley, 1902; Mead; 1934). Future research may wish to measure these variables directly in order to empirically test this explanation.

## Appendix

### Items Used to Compare Congruence of Self-Other Perceptions

ACADEMIC COMPETENCE	
Self-Rating	Teacher-Rating
<p><i>Academic Competence Scale</i> Self-Perception Profile for Children (SPPC; Harter, 1985a)</p> <ol style="list-style-type: none"> <li>1. Some kids feel that they are very good at their schoolwork BUT other kids worry about whether they can do the schoolwork assigned to them</li> <li>2. Some kids feel like they are just as smart as other kids their age BUT other kids aren't so sure and wonder if they are as smart</li> <li>3. Some kids are pretty slow in finishing their schoolwork BUT other kids can do their school work quickly</li> <li>4. Some kids often forget what they learn BUT other kids remember things easily</li> <li>5. Some kids do very well at their classwork BUT other kids don't do that well at their classwork</li> <li>6. Some kids have trouble figuring out the answers in school BUT other kids can almost always figure out the answers</li> </ol>	<p><i>Learning Problems Scale</i> Behavioral Assessment System for Children- Teacher Rating Scales (BASC-TRS; Reynolds &amp; Kamphaus, 1992)</p> <ol style="list-style-type: none"> <li>1. Does not complete tests</li> <li>2. Makes careless errors</li> <li>3. Says that textbooks are hard to understand</li> <li>4. Gets failing school grades</li> <li>5. Has spelling problems</li> <li>6. Has problems with mathematics</li> <li>7. Has reading problems</li> <li>8. Has poor handwriting or printing</li> <li>9. Completes assignments incorrectly because of not following instructions</li> </ol> <p><i>Note:</i> The value of this scale was reversed so that higher scores indicate higher academic competence</p>

SOCIAL ACCEPTANCE		
Self-Rating	Teacher-Rating	Peer-Rating
<p><i>Social Acceptance Scale</i> (SPPC; Harter, 1985a)</p> <ol style="list-style-type: none"> <li>1. Some kids find it hard to make friends BUT other kids find it's pretty easy to make friends</li> <li>2. Some kids have a lot of friends BUT other kids don't have very many friends</li> <li>3. Some kids would like to have a lot more friends BUT other kids have as many friends as they want</li> <li>4. Some kids are always doing things with other kids BUT other kids usually do things by themselves</li> <li>5. Some kids wish that more people their age liked them BUT other kids feel that most people their age do like them</li> <li>6. Some kids are popular with other kids their age BUT other kids are not very popular</li> </ol>	<p><i>Withdrawal Scale</i> (BASC-TRS: Reynolds &amp; Kamphaus, 1992)</p> <ol style="list-style-type: none"> <li>1. Refuses to talk</li> <li>2. Avoids competing with other children</li> <li>3. Plays alone</li> <li>4. Avoids other children</li> <li>5. Is chosen last by other children for games</li> <li>6. Has trouble making new friends</li> <li>7. Is shy with adults</li> <li>8. Refuses to join group activities</li> </ol> <p><i>Note:</i> The value of this scale was reversed so that higher scores indicate higher social acceptance</p>	<p><i>Peer-Nominations of Likeability</i></p> <p>Peer-rated social acceptance was determined through peer nominations of likeability. Students were asked to consider each classmate and state whether they liked that student:</p> <ol style="list-style-type: none"> <li>1. "A lot"</li> <li>2. "A little"</li> <li>3. "The least"</li> </ol>

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BEHAVIORAL CONDUCT

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Self-Rating

Teacher-Rating

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*Behavioral Conduct Scale*  
(SPPC; Harter, 1985a)

1. Some kids often do not like the way they behave BUT other kids usually like the way they behave
2. Some kids usually do the right thing BUT other kids often don't do the right thing
3. Some kids usually act the way they know they are supposed to BUT other kids often don't act the way they are supposed to
4. Some kids usually get into trouble because of the things they do BUT other kids usually don't do things that get them into trouble
5. Some kids do things they know they shouldn't do BUT other kids hardly ever do things they know they shouldn't do
6. Some kids behave themselves very well BUT other kids often find it hard to behave themselves

*Externalizing Problems Composite*  
(BASC-TRS: Reynolds & Kamphaus, 1992)

The externalizing problem composite contains 37 items taken from three scales: conduct problems, hyperactivity, and aggression. Below is a sample of items from the composite:

1. Bothers other children when they are working
2. Acts without thinking
3. Cannot wait to take turn
4. Argues when denied own way
5. Breaks other children's things
6. Complains about rules

*Note:* The value of this composite was reversed so that higher scores indicate more positive behavioral conduct

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PEER VICTIMIZATION

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Self-Rating	Teacher-Rating	Peer-Rating
<p><i>Peer Victimization Scale</i> (Neary &amp; Joseph, 1994)</p>	<p><i>Adapted from a teacher nomination measure used by Perry, Kusel, and Perry (1988)</i></p>	<p><i>Adapted from the Peer Nomination Inventory</i> (Perry, Kusel, &amp; Perry, 1988)</p>
<p>1. Some kids are often teased by other children BUT other kids are not teased by other children</p>	<p>1. This child's feelings are easily hurt</p>	<p>Determined through peer nominations following these statements:</p>
<p>2. Some kids are often bullied by other children BUT other kids are not bullied by other children</p>	<p>2. This child is repeatedly harassed or picked on by other children</p>	<p>1. Others make fun of these kids</p>
<p>3. Some kids are not called mean names by other kids BUT other kids are often called mean names by other kids</p>	<p>3. This child is left alone or ignored</p>	<p>2. Others beat up these kids</p>
<p>4. Some kids are often picked on by other children BUT other kids are not picked on by other children</p>	<p>4. This child is excluded from the group</p>	<p>3. Others call these kids names</p>
<p>5. Some kids are not hit and pushed around by other kids BUT other kids are often hit and pushed around by other kids</p>	<p>5. This child is made fun of</p>	<p>4. Others do mean things to these kids</p>
<p>6. Some kids are not laughed at by other kids BUT other kids are often laughed at by other kids</p>		<p>5. Others pick on these kids</p>
		<p>6. Others try to hurt these kids feelings</p>

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BULLYING BEHAVIOR		
Self-Rating	Teacher-Rating	Peer-Rating
<i>Bullying Behavior Scale</i> (Austin & Joseph, 1996)	<i>Adapted from the Teacher Rating Scale</i> (Dodge & Coie, 1987)	<i>Overt Aggression Scale</i> (Crick & Warner, 1998)
<ol style="list-style-type: none"> <li>1. Some kids do not hit or push other kids around BUT other kids do hit and push other kids around</li> <li>2. Some kids often bully other kids BUT other kids do not bully other kids</li> <li>3. Some kids do not laugh at other kids BUT other kids often laugh at other kids</li> <li>4. Some kids often pick on other kids BUT other kids do not pick on other kids</li> <li>5. Some kids do not call other children mean names BUT other kids often call other children mean names</li> <li>6. Some kids often tease other kids BUT other kids do not tease other kids</li> </ol>	<ol style="list-style-type: none"> <li>1. Uses physical force to dominate</li> <li>2. Gets others to gang up on a peer</li> <li>3. Threatens and bullies others</li> <li>4. Teases and name calls</li> <li>5. Starts fights with peers</li> <li>6. Gets into verbal arguments</li> </ol>	<p>Determined through peer nominations following these statements:</p> <ol style="list-style-type: none"> <li>1. Kids who hit others</li> <li>2. Kids who push and shove others around</li> <li>3. Kids who call other kids mean names</li> <li>4. Kids who say mean things to other kids to insult them or put them down</li> <li>5. Kids who tell others they will beat them up unless the kids do what they say</li> </ol>

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