School Belonging and Social Support: Identifying Moderators of the Relationship between Gender Typicality and Self-Esteem

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SCHOOL BELONGING AND SOCIAL SUPPORT: IDENTIFYING MODERATORS OF THE RELATIONSHIP BETWEEN GENDER TYPICALITY ON SELF-ESTEEM

Dissertation

by

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TABLE OF CONTENTS

Abstract

Gender is an undeniably significant element of human identity, contributing to multiple aspects of development. Previous research suggests that gender typicality, a sense that one is typical for one's own gender category, is associated with positive developmental outcomes among children while a sense of gender atypicality is generally associated with negative outcomes, including lowered self-esteem (Egan & Perry, 2001). This study further investigates the relationship between gender typicality and self-esteem from a developmental-contextual perspective by examining the relationship in the context of various developmental systems (e.g., school, peer group). Positive connections to developmental systems such as peers and school have been found to foster resilience by reinforcing strengths and buffering students from negative outcomes (Masten & Coatsworth, 1998). Therefore, it was hypothesized that classroom social support and school belonging would moderate the relationship between gender typicality and self-esteem by protecting gender atypical children from the negative cost of low self-esteem. Within the current sample, the relationship between gender typicality and self-esteem was more robust than in previous studies. While the moderating hypotheses were not confirmed, gender typicality was found to mediate the relationship between school belonging and self-esteem. The current findings underscore the vital role of gender and gender typicality in children's lives. Implications for prevention and intervention efforts in schools are discussed.

CHAPTER I: Introduction

The evolution of human developmental theories has brought them to their current focus on the mutually transformative interactions between individuals and the multiple levels of contexts (e.g., family context, school context, peer context) that surround them. As these various systems interact, they impact one another and each individual, giving way to a constantly evolving physical, social and emotional environment that shapes and is shaped by the developing children within them (Lerner, 1984; 1995; 2001; 2006). Dynamic relationships with contexts that continue throughout the lifespan allow for interplay between risks (e.g., community violence), strengths (e.g., intellectual prowess) and protective factors (e.g., mentoring relationship) that creates endless possibilities for the course of development (Cicchetti & Garmezy, 1993; Masten & Coatsworth, 1998). Among the core aspects of human development and functioning is gender identity, which develops through interaction of individual factors (e.g., biology, cognition, psychology) with proximal and distal social systems (e.g., family, school, dominant culture).

Gender is an undeniably significant element of human identity, contributing to innumerable aspects of development and functioning. The distinction between male and female serves as an organizing principle for every human culture and impacts almost all facets of social functioning (Bem, 1981). Appearance, mannerisms, communication, temperament, activities at home and outside, aspirations, and values can all be shaped by maleness or femaleness (Ruble, Martin & Berenbaum, 2006). Thus, gender identity and its alignment with social expectations for men and women, have a far-reaching impact on mental health and developmental outcomes.

Though gender identity has been conceptualized, defined and measured differently as understandings of human development have evolved, seminal theories of gender emphasize the role of context. Kagan (1964) sees gender identity as the extent to which an individual perceives the self as conforming to cultural stereotypes for one's gender. Bem (1981) argues that gender identity represents the degree to which an individual has internalized the social pressures of conformity to gender norms. West and Zimmerman (1991) posit that gender is performed continually as a series of behaviors or activities that are embedded in a variety of social contexts. Despite the nuances that distinguish them, these understandings align with a developmental-contextual perspective that highlights the dynamic interaction between an individual and the multi-tiered context.

Social systems communicate gendered expectations for men and women called gender role norms, which are powerful and pervasive social forces (Cialdini & Trost, 1998). Their impact on individuals' construction of identities starts at young ages, as messages about gender roles are communicated and reinforced by social agents such as parents, teachers, peers, and the media (Bem, 1981). For example, gender category is typically one of the first and most fundamental things that a child learns about him or herself. By age 2.5 or 3, most children can answer correctly to the question, "Are you a boy or a girl?" Further, Maccoby (1998) notes that throughout preschool, children's activities become increasingly sex typed until, by age 5, most children have developed clearly defined notions of appropriate behavior for males and females (Lytton & Romney, 1991).

Given the pervasiveness of gender role expectations, it is not surprising that the extent to which an individual's gender role identity reflects social expectations has far-reaching consequences for development, perhaps particularly in childhood and adolescence (Knafo, Iervolino & Plomin, 2005). Parents, peers and teachers reinforce gender-typical behavior and criticize gender atypical behavior, particularly for boys (Fagot, 1977; Langlois & Downs, 1980). In addition, gender atypical children typically experience lower quality parent-child relationships than other children (Bradley & Zucker, 1997).

An emerging construct in the gender literature is gender typicality, which is a self-perception of similarity to others of one's gender category. Gender typicality is one of the five dimensions of gender identity identified by Egan and Perry (2001), along with (a) membership knowledge, defined as knowledge of one's membership in a gender category (b) gender contentedness, which is satisfaction with one's gender assignment (c) felt pressure, from parents, peers and the self for conformity to gender norms, and (d) intergroup bias, the belief that one's own sex is superior to the other.

An empirical exploration of Egan and Perry's (2001) multidimensional model of gender identity has established that gender typicality is significantly related to several critical aspects of psychological well-being in children. Gender typicality is positively related to global self-worth, self-perceived peer competence, acceptance from male peers and acceptance from female peers (Egan & Perry, 2001). By contrast, children who perceive themselves as gender atypical are perceived by their peers to have internalizing problems, self-report distress and report dissatisfaction with their social lives. Longitudinally, gender typicality predicts future increases in self-worth, while gender

atypicality contributes to declines in self-worth (Carver, Yunger & Perry, 2003; Yunger, Carver & Perry, 2004). In sum, evidence generally suggests that a sense that one is typical for one's own gender category or similar to others within it seems to be associated with positive developmental outcomes among children. Conversely, a sense of being different, or atypical for one's gender group, is generally associated with lowered self-esteem.

Among children, self-esteem is a critical indicator of mental health and positive development. In both clinical and non-clinical samples, depression has been associated with low self-esteem. In fact, the negative self-evaluations that characterize low self-esteem are a critical aspect of depressed mood (Harter, 1999). In addition, self-esteem has been linked to a host of other important aspects of development. For example, low self-esteem has been associated with higher levels of suicide risk (McGee & Williams, 2002), disordered eating patterns, sexual risk taking behavior (Steinberg & Levine, 1997), and a lack of autonomy (Hamancheck, 1988). By contrast, high levels of self-esteem have been associated with high academic achievement (Perry-Burney & Kwaki-Takyi, 2002) and a viable sense of autonomy (Hamancheck, 1988).

The association of low levels of gender typicality with lowered self-esteem indicates that it can be considered a risk factor for development. However, developmental contextualism maintains that healthy development occurs not because of the absence of risks, but rather when individuals benefit from protective factors that buffer them from the negative outcomes typically associated with risks. Therefore, identifying protective factors that may protect children from the negative outcomes typically associated with gender atypicality is an important task.

A developmental-contextual perspective proposes that individuals cannot be considered apart from their environment, and therefore that the relationship between these intrapsychic variables (i.e., gender typicality, self-esteem) cannot be examined in isolation from their surrounding social systems (family, school, peer). Therefore, researchers of gender typicality have argued for these social contexts to be incorporated into investigations of the relationship between gender typicality and self-esteem (Egan & Perry, 2001; Smith & Leaper, 2005).

The purpose of this study is to further investigate the relationship between gender typicality and self-esteem in a way that incorporates children's relationships to their surrounding contexts, which harbor messages that may either reinforce or devalue their gender identity or expression. Positive connections to developmental systems such as schools and peers may serve as protective factors and help foster resilience in children who appraise themselves as gender atypical. Therefore, this study will examine the extent to which school belonging and classroom social support moderate the relationship between gender typicality and self-esteem. In other words, it is possible that the direction and/or intensity of the relationship between gender typicality and self-esteem depends on the level of school belonging or classroom social support experienced by an individual student. For example, the relationship between a self-perception of gender atypicality and low self-esteem may be significantly weaker for students who feel a strong sense of belonging in their school environment. In this case, school belonging is working as a protective factor for a child who feels atypical within his or her gender group and is therefore at-risk for low self-esteem.

From a developmental-contextual perspective, this study is significant because of its focus on protective factors that buffer adolescents from negative outcomes and promote positive ones in the face of risks. Further, this study may yield important clinical implications about resilience. In recent years, exploring developmental factors that contribute to resilience has become a definitional task for psychologists (Walsh, DePaul & Park-Taylor, 2009). Resilience is defined as the "the capacity to spring back, rebound, successfully adapt in the face of adversity" (Henderson & Milstein, 1996, p. 7). The existence of resilience implies the presence of individual, family or social factors that stem the trajectory from risk to psychopathology and, therefore, result in adaptive outcomes despite harsh conditions (Cicchetti & Garmezy, 1993). In this study, the contextual factors that will be examined as possible moderating variables are school belonging and classroom social support.

School belonging has been defined in numerous ways and overlaps with several other constructs, such as school engagement, school bonding, school membership, school involvement, and identification with school, among others. School belonging has been conceptualized as students' sense of being accepted, valued, included and engaged by others (i.e., teachers, peers) in the classroom or school setting. In concurrence with Goodenow, Ryan (2000) posits that a sense of belonging fulfills a primary psychological need that bolsters the capacity to engage and achieve in school. If the psychological need to belong is, at least partially, fulfilled by a sense of belonging to school, it is possible that this connection may reduce the negative costs of not feeling typical for one's gender category.

Furthermore, it is reasonable to expect that school bonding could serve as a protective factor for gender atypical students because it has been established as a protective factor for several aspects of development in children. For example, high levels of school bonding is related to high academic achievement (Anderman, 2002), high academic self-efficacy (Murdock, Hale & Weber, 2001) and high academic motivation (Goodenow & Grady, 1993). In addition, low levels of school bonding, engagement and connectedness have been associated with delinquency, substance use, early sexual activity, low school achievement, school dropout, low motivation, and poor social and emotional adjustment to school (Anderman, 2002; Marchant et al, 2001).

Conceptualizations of social support as protective in the process of child development and adjustment align with theories that recognize the vital role of ecological context (Lerner, 2006). Empirical research supports the general hypothesis that social support protects children from the negative impact of stress (Gottlieb, 1991). Inverse relationships between social support and internalizing symptoms have been found (Johnson & Kliewer, 1999). In girls, low levels of social support for girls have been shown to be a risk factor for unsafe sexual behavior and the contraction of sexually transmitted diseases (Mazzaferro et al, 2006). For boys, low levels of social support have been related to smoking (Stanton, Lowe & Silva, 1995).

Current conceptualizations contend that social support goes beyond the existence or non-existence of friends. What was once thought of as a one-dimensional construct has revealed itself to be complex and multi-faceted. Investigations of social support have recently been focused on identifying the presence of certain friendship features or processes that are associated with friendship satisfaction and generally positive

developmental outcomes (Ladd, Kochenderfer & Coleman, 1996). For example, validation, or receiving positive feedback and support from a friend, has been determined to be critical aspects of friendship at all ages (Asher & Parker, 1989; Furman & Bierman, 1983). In addition, aid, which is receiving assistance from a friend during times of emotional or instrumental problems, represents a concrete form of support that characterizes relationships between young people (Asher & Parker, 1989; Furman & Bierman, 1983). Finally, it has been argued that children interact differently as a function of the particular proximal context (e.g., family, peers). Children exhibit varying levels of relationship confidence and experience varying levels of acceptance in various interpersonal contexts (Harter, 1997). Thus, it has been argued that social support should be measured within a specific interpersonal context. As a result, this study concentrates on classroom social support as a possible protective factor of the relationship between gender typicality and self-esteem.

In closing, this study seeks to identify protective factors and processes for gender atypical youth, who are at-risk for negative psychological outcomes. Given the costs of high conformity to gender norms (Mahalik et al., 2003; Mahalik, Morray, Coonerty-Femiano, Ludlow, Slattery, & Smiler, 2005), it is important that support from immediate systems (e.g., school, social network, family) enable children and adolescents to break from gender norms if and when they feel compelled to.

CHAPTER II: Literature Review

Developmental-contextualism proposes that human development is propelled by the dynamic interaction between individuals and the various levels of their environment, including peer groups, schools contexts, communities and the dominant culture (Lerner, 1995; 2001; 2006). Through interaction with various contextual levels, individuals can encounter adversity and risk (e.g., domestic violence, isolation from peers), develop personal strengths (e.g., high intelligence, athletic ability) and benefit from protective factors (e.g., positive social connections, sense of school belonging). The interplay among risk factors, strengths and protective factors profoundly shapes the course of development (Masten & Coatsworth, 1998). In particular, the dynamic relationship among these three elements of life experience can determine the extent to which individuals suffer the negative costs of adversity or thrive in the face of it.

The present study examines the role of protective factors in the development of children who perceive themselves as gender atypical. Situated in the larger theoretical framework of developmental contextualism, this study proposes that school belonging and classroom social support will moderate the relationship between gender typicality and self-esteem. The research on gender typicality, though limited, has produced compelling findings, particularly establishing its direct relationship with self-esteem.

This chapter will elucidate both the broader developmental-contextual framework as well as the more specific theoretical underpinnings of this study, including social learning and cognitive-developmental theories of gender identity development. Ultimately, this chapter will lead to the delineation of the current study, providing a rationale and supporting it with relevant research.

The Developmental-Contextual Perspective

Developmental contextualism, a prominent example of a contemporary developmental theory, creates a theoretical foundation for the current study. Developmental contextualism is an outgrowth of Bronfrenbrenner's (1979) developmental systems theory and is grounded in four central tenets that view development as: (a) occurring simultaneously on biological, psychological and social levels, (b) continuing throughout the lifespan, (c) shaped by a dynamic interaction between the individual and his or her contexts, and (d) impacted by risk and protective factors (Lerner, 1995; 2001; 2006; Walsh, Galassi, Murphy & Park-Taylor, 2002).

Developmental contextualism strives to understand the whole person, attending to various personal domains, including biological, psychological and social aspects of the individual (Lerner, 2001). These developmental levels continually and reciprocally interact with one another to profoundly shape an individual's health and growth throughout his or her life. In fact, while traditional theories have focused primarily on the first 18 years of life, developmental contextualism proposes that development continues across the lifespan. This perspective, therefore, endorses plasticity, proposing that the potential for redirecting the course of development does not expire (Walsh, DePaul & Park-Taylor, 2009). Though these first two assumptions of developmental contextualism are significant, the latter two (i.e. context impacts development, the role of risk and protective factors) are particularly relevant to the current study and will be discussed in further detail.

The Role of Context

Foremost within contemporary perspectives such as developmental contextualism (Lerner, 1995) and ecological theory (Bronfenbrenner, 1979; 1986; Bronfenbrenner & Morris, 2006) is the understanding that human development occurs within a range of contexts and involves a transactional relationship between an individual and these contexts (Rutter & Sroufe, 2000). Bronfenbrenner's (1979) ecological model situates the individual within a system that includes proximal and distal developmental influences that are arrayed around the individual in a series of nested contexts called *microsystems, exosystems,* and *macrosystems.* For example, a school child's microsystem would include those people and groups with which the child interacts directly, such as his or her peers, parents, and teachers. Exosystems, which refers to social systems that impact the child though the child may not function directly in it, might include school district-level decisions about curricula, and federal educational policies that impact the school environment. Macrosystems might include the belief systems, resources, risks, opportunity structures, and life course options that are embedded in such overarching systems (Bronfenbrenner & Morris, 2006). As these systems interact, they mutually impact one another, giving way to a constantly evolving physical, social and emotional environment that shapes and is shaped by individual school children.

Risk and Protective Factors

The emergence of developmental contextualism represented a shift in the focus of mental health professions from a near-exclusive consideration of psychopathology to an exploration of factors that contribute healthy development. Recently, understanding resilience, or the "the capacity to spring back, rebound, successfully adapt in the face of

adversity" (Henderson & Milstein, 1996, p. 7) has become a critical task for

psychologists. Understanding resilience entails knowledge of "protective factors," which

are individual, family or societal factors or processes that "stem the trajectory" from risk

to psychopathology and result in adaptive outcomes in the presence of risk factors

(Cicchetti & Garmezy, 1993, p. 497).

Theoretical foundations of resilience suggest that it is not a static condition, but

rather, that it continuously evolves through dynamic interactions between an individual

and his or her environment and among his or her intra-organismic (i.e., biological,

psychological, social) levels of development (Cicchetti & Schneider-Rosen, 1986).

Therefore, though individuals remain susceptible to risk factors throughout their lives,

they maintain the capacity to develop strengths (e.g., academic aptitude, career self-

efficacy, athletic ability) or benefit from potential protective factors (e.g., mentor support,

community involvement; Masten & Coatsworth, 1998). The concept of resilience

assumes that contextual conditions do not prevent a reliance on protective factors.

Over the last decade, the literature has presented varied and sometimes arbitrary

definitions of risk and protective factors (Burt, Obradovic, Long & Masten, 2008). The

struggle to define these concepts reveals complexities that challenge efforts to examine

them. Masten (2007) argues that risk and protective factors are rarely pure entities and

that they almost never appear in isolation. Rather, developmental risks often co-occur and

their effect is often cumulative, leading towards a greater likelihood of negative

outcomes. Further, risk factors are often conceptualized along a continuum, with the

low-risk extremes related to positive outcomes and the high-risk extremes related to

negative outcomes. However, low risk factors do not indicate the presence of protective

factors or adaptive outcomes, so it is important not to conclude that low risk is causally

related to positive adaptation (e.g., the absence of peer victimization does not indicate the

presence of positive peer relationships). Rather, positive outcomes are more likely a

product of not only low risks, but also the presence of protective factors and strengths.

For example, authoritative parents (protective factor), for example, may lead to fewer

stressful family life events (risks), choose to live in neighborhoods with low rates of

community violence (risks) and well-resourced school (protective factor; Masten, 2001,

p. 228). In sum, developmental outcomes occur as a result of the complex interplay

among risk factors, strengths and protective factors.

<div align="center">Gender and the Developmental-Contextual Perspective</div>

One of the core dimensions of human development that shapes interactions with

the social environment is one's gender assignment and gender identity. Gender is an

undeniably significant element of human identity, contributing to innumerable aspects of

development and significantly influencing the nature of interactions with the social

environment (Bem, 1981). As a result, gender identity and degree of conformity to social

gender norms have far-reaching consequences for psychological adjustment and well-

being (Bugental & Goodnow, 1998). One of the many known risk factors that can pose a

threat to psychosocial well-being and healthy development for children is a self-

perception of gender atypicality (Egan & Perry, 2001).

Gender typicality, a self-perception of similarity to others of one's gender, is one

of the five dimensions of gender identity proposed by Egan and Perry (2001). The other

dimensions are (a) membership knowledge, defined as knowledge of one's membership

in a gender category (b) gender contentedness, which is satisfaction with one's gender

assignment (c) felt pressure, from parents, peers and the self for conformity to gender norms, and (d) intergroup bias, the belief that one's own sex is superior to the other.

Gender and the Role of Context

Expectations for gendered behavior, or gender norms, exist and are communicated at all of the proximal and distal contextual levels. Gender norms are pervasive and powerful social forces that impact influence behavior and identity development in women and men (Eisler, 1995). The extent to which one's gender role identity reflects social values can result in gender role strain (Pleck, 1995) and has significant implications for psychological well being (Brown, 1986). At the level of the *macrosystem*, social messages are communicated about preferred appearances, mannerisms, communication styles, temperaments, activities, aspirations, and values for men and women (Martin, Ruble & Szkrybalo, 2002). Mahalik and colleagues (2003; 2005) have identified eight feminine norms and eight masculine norms that are represented in the dominant culture of the United States. This dominant culture is comprised, at least partially, of the belief systems and opportunity structures that characterize a *macrosystem*. Social costs and benefits result from both conformity and nonconformity to each of these gender norms that exist in this overarching system (Mahalik et al., 2003; 2005). The *exosystem* includes such influences as parents' workplace or the school district. At this level, parents' workplace schedules may impact the division of labor in home, while school-district hiring policies may result in the disproportionate representation of men in positions of authority in schools (Ruble & Martin, 1998). Finally, at the *microsystem* level, evidence suggests that gender norms are reinforced in the family system by the differential treatment of boys and girls (Lytton & Romney, 1991). Further, that peer groups also

perpetuate gender norms is evidenced by the disproportionately high rates gender-nonconforming youth who experience peer rejection (Zucker & Bradley, 1995).

A developmental-contextual perspective proposes that individuals cannot be understood or even considered apart from their environment, and therefore that the relationship between intrapsychic variables (e.g., gender typicality, self-esteem) cannot be effectively examined in isolation from the various contextual levels that shape development. Much of the research thus far on self-perceived gender typicality has explored its relationship with global self-worth. Global self-worth, a term defined judgment of one's overall worth as a person and used interchangeably with self-esteem (Harter, 1999), is also a self-perception. Several of the researchers who have studied gender typicality (e.g., Egan & Perry, 2001; Smith & Leaper, 2005) argue that the relationship between gender typicality and self-worth depends largely on social context and therefore that future research should attempt to contextualize this relationship. For example, Egan and Perry (2001) posed, but did not test, the hypothesis that students low in gender typicality are more vulnerable to negative psychosocial outcomes in contexts where strong norms for gender-stereotyped behavior exist.

Even though gender typicality has been shown to be moderately temporally stable (Yunger, Carver & Perry, 2004), Egan and Perry (2001) have conceptualized it as a cognition that is continuously evolving through interactions with the environment. Though gendered messages communicated by the level of the macrosystem may remain somewhat stable, norms in children's microsystems, like schools or peer groups, are likely more malleable. According to West and Zimmerman (1991), gender identity is constantly evolving through these everyday direct interactions with social situations and

systems. In this view, gender is done, or performed (West & Zimmerman, 1991); it is a routine, methodical, and recurring accomplishment embedded in interactions with microsystems. Therefore, to the extent that the self-perceived sense of gender typicality is shaped by these interactions with the more proximal social systems, there is likely to be some fluctuation and instability in gender typicality.

The current study seeks to integrate the effect of specific, proximal social contexts on the developmental pathway that leads to gender typicality and self-esteem. By assessing the extent to which a child's level of peer social support moderates the relationship between gender typicality and self-esteem, this study examines the relationship between these two variables in relation to peers, a vital aspect of one's proximal context. Furthermore, by assessing the extent to which a child's sense of belonging to school moderates the established positive association between gender typicality and self-esteem, this study examines the relationship between these two variables in relation to the school context.

Gender and Risk and Protective Factors

Research indicates that the gender typicality has the potential to be either a risk factor or a protective factor. Different levels of gender typicality are associated with drastically different adjustment outcomes (Egan & Perry, 2001). Generally, children who report higher levels of gender typicality experience a more positive perception of themselves than children who report lower levels of gender typicality (Carver, Yunger & Perry, 2003). Thus, whether gender typicality serves as a risk or protective factor typically depends on several factors, including the individuals' perception of connection with various social contexts, such as school and peers (Egan & Perry, 2001).

Gender typicality has been shown to interact with other contextual or intrapsychic variables such that its relationship with adjustment outcomes may be altered. For example, felt pressure to conform to gender norms moderated the relationship between gender typicality and internalizing symptoms (Carver, Yunger & Perry, 2003). In other words, the strength of the association between gender typicality and internalizing problems was a direct function of the degree which children reported pressure for gender conformity: "As the level of felt pressure moved from low to medium to high, gender typicality became increasingly associated with internalizing problems" (Carver, Yunger & Perry, 2003, p. 103). Further, high levels of self-esteem have been found in students who report low gender typicality in combination with high peer acceptance (Smith & Leaper, 2005). Thus, though low gender typicality can be considered a risk factor because it is consistently associated with negative outcomes, it is important to avoid the assumption that the relationship is direct and unchangeable. Development is a result of the interplay of multiple risk and protective factors, such that low gender typicality can be associated with positive outcomes if there are certain protective factors in place.

The theoretical evolution of gender typicality, the predictor variable in this study, reflects the importance of the dynamic interaction between the individual and the multi-tiered context in development and therefore aligns with a developmental-contextual framework.

<center>Theoretical Evolution of Gender Typicality</center>

As a result of the far-reaching social and psychological implications of gender, psychologists have long been engaged in theoretical and empirical investigations of the development of gender identity. The initial nature versus nurture debate on the

development of gender identity has given way to questions about the mechanisms

through which biology, cognitions and the social environment work together to produce

gender identity and behavior. The primary theories of gender identity have emerged from

cognitive-psychological and social-psychological traditions. Over time, as these theories

have evolved, they have reflected an integration of principles from one another, and

simultaneously recognized the significant biological contributions to gender identity.

Social theories of gender have progressively incorporated the role of biology and

cognitions in gender development, while the maturation of cognitive theories has led to

an integration of the role of biological and social forces in gender development (Martin,

Ruble & Szkrybalo, 2002). The concept of gender typicality incorporates aspects of both

the social and cognitive traditions. This review of the literature will describe the

evolution of the gender typicality construct, including discussions of research that support

both cognitive and social theories.

Social Theories of Gender Development

Mischel (1966), a social learning theorist, presented a theory of gender

development that emphasized the importance of environmental factors, particularly

rewards and models in shaping gender development, gender identity and gender-typed

behavior. From Mischel's perspective, direct reinforcement or rewards for conformity to

gender norms is a primary mechanism through which gender development occurs. For

example, when adults compliment a girl for wearing a dress but not for wearing pants,

she has been rewarded or directly reinforced for her conformity to feminine norms. In the

model of social learning, reinforced behaviors precede cognitions and thus create a

child's understanding of him or herself as a gendered being. Reinforcement from

caregivers results in cognitions: "I have been rewarded for doing boy things, therefore I must be a boy." (Martin, Ruble & Szkrybalo, 2002, p. 904).

Mischel's view of gender development also stresses the role of observational learning, a point that later social theories expand. Children are viewed as engaging in more same- rather than other-sex behavior because they are differentially exposed to same-sex models (Crouter, Manke, & McHale, 1995). Further, children's tendencies to segregate by sex results in an increased exposure to same-sex peers as opposed to other-sex peers (Maccoby, 1998; Martin & Fabes, 2001).

In the decades since Mischel's first iteration of a social learning perspective of gender development, theoretical debate between social and cognitive theorists has led to the inclusion of cognitive theoretical notions within a social learning perspective. One significant product of this debate is Bussey and Bandura's (1999) social-cognitive theory of gender development. Social-cognitive theory incorporated cognitive mechanisms and mediators of gender-typed behaviors, thus advancing social learning theories beyond their dependence on external factors as the sole determinants of behavior. Social-cognitive theory proposes that, in addition to environmental events, personal factors and behavior patterns contribute to gender development.

Termed the "notion of triadic reciprocal causation," social-cognitive theory posits that mutually dynamic interaction among three factors (e.g., environmental events, personal factors, behavior patterns) produces gender-typed behaviors. In other words, social-cognitive theory includes internal variables, such as a child's biological preparedness to learn and engage in gender-typed behaviors, his or her emotional state, self-standards, anticipated outcomes, and past success or failure in engaging in gendered

behaviors, as integral to the emergence and maintenance of gendered behaviors. Most theorists agree that the openness to more variables as contributors to behavior improves the social learning view of gender development insofar as it lends the theory more of a capacity to explain the inconsistencies of children's gender-typed behaviors across times and settings (Martin, Ruble & Szkrybalo, 2002).

The construct of gender typicality reflects critical elements of these social perspectives on gender development. Egan and Perry (2001), originators of the gender typicality construct, recognize the critical significance of social messages about gender in the formation of gender identity. According to Egan and Perry (2001), the process of judging one's self against the backdrop of social expectations is a critical dimension of identity and has far-reaching consequences for psychological well-being. Specifically, by assessing how typical children feel as members of their gender group, the authors acknowledge the contributions of social messages to the gender identity and other aspects of development.

Empirical Support for Social Theories of Gender

As social theories of gender development have progressed, they have been informed by empirical investigations of how gender socialization occurs through various processes and in various contexts. Following are summaries of research that has explored gender socialization in three primary developmental systems that shape children's development.

Gender Socialization in Schools. Schools reflect the norms, values and phenomena of the larger social system (Brantlinger, Morton & Washburn, 1999; Trickett & Birman, 2005). As a result, children receive a wide-array of concentrated gender

socialization messages at school. Perhaps most significantly, teachers tend to treat boys and girls differently and hold distinct expectations for their abilities. Research suggests that teachers interact differently with boys and girls at all levels, while the differences are most striking at younger age levels. Teachers of infants and toddlers may impact behavior by reinforcing stereotypic expectations about girls' and boy's behavior even when the children are not displaying differences (Ruble & Martin, 1998). Throughout the school years, teachers interact with, attend to and criticize boys more while also interrupting them less. In elementary schools, boys are called on more than girls. However, it is uncertain whether or not this disparity can be attributed to the different rates at which boys and girls volunteer answers. In fact, Altermatt and colleagues (1998) found that girls and boys were equally likely to be called on when they volunteered.

In addition to established differences in teachers' treatment of boys and girls, their expectations for their students' academic ability and behavior can vary as a function of their students' gender. For example, elementary school teachers believe that boys are better than girls in science and math (Tiedemann, 2000). In addition, it seems that boys' and girls' classroom behavior are viewed with different perspectives. For instance, lying and cheating are judged more harshly in girls than in boys, while hyperactivity and quarrelsomeness are viewed as more serious in boys than in girls.

In addition to this evidence of differential treatment and expectations for boys and girls in school, the structure of schools supplement socialization by providing gender-related information in the roles played by men and women as well as the segregation of boys and girls. While men disproportionately inhabit roles of power and administration, the overwhelming majority of teachers, particularly in the early grades, are women.

Further, sex segregation occurs frequently in schools, sometimes for such arbitrary activities as standing in line (Ruble & Martin, 1998) and can strengthen the influence of peer role models, create separate cultures and reinforce gender-typed activities (Maccoby, 1998).

Gender Socialization in the Peer Context. Primarily through reinforcement and modeling, peer interactions have also been shown to exert a strong influence on gender development. Research conducted primarily in the 1970's and 1980's indicated that children interact differently with gender-typed behaviors (Ladd, 2005), thus reinforcing behavior that aligns with gender norms. Specifically, peers responded to boys' assertive behavior more than to similar behavior in girls (Fagot & Hagan, 1985). Furthermore, peers responded more negatively to boy's who engaged in female-typed behavior and particularly to the boys who did not engage in male-typical behaviors (Fagot, 1985). More recent research on peer rejection has found that though both sexes dislike others who are aggressive. Girls are more negative about externalizing behaviors in peers, while boys are more negative about anxious and depressed behaviors. These findings suggest that both sexes are more tolerant of behavior that is consistent with gender norms (Waas & Graczyk, 1999). Finally, consistently engaging in nonconforming gendered behaviors is associated with peer rejection and dislike for children of both sexes, though nonconforming boys are teased significantly more than girls (Zucker & Bradley, 1995).

It is widely assumed that peers serve as role models for each other, but this assumption has not been thoroughly supported empirically. While studies demonstrate that children learn standards for gender-appropriate behavior from peers (see Ladd, 2005; Leaper, 1994), studies have failed to demonstrate that children respond to the gender-

inconsistent behavior of peer role models, unless the behavior was reinforced (Katz &

Walsh, 1991). Social status among children, however, typically relates to their success

with gender-consistent behaviors and roles. For example, preadolescent boys achieve

status via athletic ability, toughness and social skills, while girls' status levels are

associated with physical appearance, social skills and parents' socioeconomic status.

Given that children and adolescents are motivated to live up to images of what is

considered "cool," the relationship between gender conformity and social status is a

powerful means of peer socialization (Martin, Ruble & Szkrybalo, 2002).

Gender Socialization in the Family Context. Gender socialization in the family is

a complex and nuanced process that manifests in various ways. Firstly, much of the

research on gender socialization in the family has focused on finding differences in

parental interactions with girls and boys. In particular, support for parental

encouragement for gender-typed activities has been found (Martin, Ruble & Szkrybalo,

2002). In their meta-analysis of parents' differential treatment of boys and girls, Lytton

and Romney (1991) found evidence that parents offer gender-stereotypic toys to children

during free play and that they are more responsive when children are engaged in same-

gender play than when they are engaged in other-gender play. Further, communication

patterns between mothers and their preschool children vary depending on whether the

child is engaged in gender-typical or gender-atypical play (Leaper, Leve, Strasser &

Schwartz, 1995).

Despite these recorded differences, data suggests that parental interactions with

boys and girls are overall quite similar. Some researchers have therefore concluded that

family gender socialization of boys and girls is not sufficiently distinct to account for

gender differences (McHale, Crouter & Whiteman, 2003). Other researchers argue that the most powerful family gender socialization occurs more subtly. For example, caregivers shape the gender development of their children by providing girls and boys with distinct social contexts. For example, caregivers tend to provide boys and girls with different toys and room furnishings (Pomerleau, Bolduc, Malcuit & Cosette, 1990; Rheingold & Cook, 1975). Further, family dynamics provide children significantly more opportunities to model their behavior after their same-sex parent, as mothers and fathers spend more time with the child of their own sex (McHale et al., 1999; 2000). In addition, although overall communication of control in the home did not differ for boys and girls, autonomy messages were more often granted for boys than for girls (Pomerantz & Ruble, 1998). Thus, the socialization process can be more implicit, as these gender-typed contexts, family dynamics and language usage subtly influence children's preferences and engagement in activities (Martin, Ruble & Szkrybalo, 2002).

The current state of the literature on gender socialization across contexts indicates the importance of viewing these contexts as interconnected and engaged in mutually dynamic relationships. It is important to see parent-child interactions as nested within the larger family system, and the family itself within an overarching and ever-changing cultural context (McHale, Crouter & Whiteman, 2003). Similarly, peer relationships are often housed and fostered within school walls while schools reflect social norms in their hierarchy and in the behavioral, social and academic expectations held of each boy or girl. As a result, it is important to apply a research design that includes a role various contextual influences and investigates gender development and its impact on psychosocial adjustment as a pliable pathway rather than a static process.

In addition, the contexts of gender socialization continue to evolve, not only as a result of their interactions with one another, but also, in part, because of the impact of the child on the context. Just as children are impacted by their social environments, so do they impact their surroundings and therefore take an active role in shaping the contexts that contribute to their gender development. Cognitive theories focus on this constructive role that children play in their own gender development.

<div align="center">*Cognitive Theories of Gender Development*</div>

The central theme of cognitive theories of gender identity is that children play an active role in their gender development by constructing meaning from the gender-related information they encounter and applying that meaning to themselves. Unlike social theorists, cognitive theorists argue that this active process of constructing meaning of gender is initiated internally by the child rather than externally by social factors: "I am a boy, therefore I like doing boy things" (Martin, Ruble & Szkrybalo, 2002). Within the cognitive tradition, the antecedent of Perry and Egan's gender typicality construct is gender schema theory.

Gender Schema theory. Though there are several iterations of gender schema theory (e.g., Bem, 1981; Liben & Signorella, 1980), they all share a common theoretical foundation. Firstly, gender schema theory proposes that children's cognitions are central to gender development. More specifically, it is theorized that children develop gender schemas, which are organized networks of mental associations representing information about themselves and the gender categories and that these gender schemas shape information processing and behavior.

Secondly, gender schema theory supposes that children play an active role in the development of their gender identities through their active construction of schemas as well as in their motivation to adhere to their ideas of gender roles. It is important to note that gender schemas are not simply passive, internalized copies of gender-related information from the environment. Rather, they are active and dynamic knowledge representations that actively direct children by motivating them to seek gender information, particularly after they have recognized that their own gender is stable.

Thirdly, gender schema theory proposes that gender schemas motivate behaviors through two main mediating processes. The first process is schema-directed memory. According to the theory, young children attend to and remember more script-like information about activities that are relevant to themselves. Specifically, they are particularly attentive to same-sex behaviors and therefore develop the ability to behave in congruence with gender norms. Secondly, the link between gender schemas and behaviors is mediated by children's desire to define themselves as boys or girls. In other words, children are motivated to behave in accordance with gender norms as a means of achieving a cognitive sense of gender constancy.

Finally, gender schema theory allows for individual differences. Children differ in their levels of exposure to various gender stereotypes and as a result, each child develops his or her own personal, dynamic conceptualization of gender. Further, the salience and rigidity of gender schemas varies as a function of the benefits and costs of conformity and nonconformity experienced by each individual (Bem, 1981). So, the content and application of gender schemas varies across situations and individuals, who determine the self-relevance of external gender norms to their own lives. For example, a boy who

questions his gender typicality because of poor athletic ability might restore his sense of typicality by succeeding in an alternate male-typed arena, such as math or science (Spence & Buckner, 1995). This notion, that individuals define their gender identities in concert with their own conceptualization of gender (i.e., gender schema), gives rise to the construct of gender typicality (Perry & Egan, 2001). Egan and Perry (2001) propose that each child develops an idiosyncratic set of cognitions about gender that are particularly relevant for determining his or her own sense of gender typicality. Further, empirical studies suggest that this cognition, the appraisal of gender typicality, takes an active role in development by influencing outcomes such as self-esteem and internalizing problems (Carver, Yunger & Perry, 2003).

<center>Gender Typicality</center>

Egan and Perry's (2001) model of gender identity represents an integration of important aspects of both social and cognitive theories of gender development. The membership knowledge component reflects Kohlberg's (1966) groundbreaking idea of gender constancy, which propelled the idea that children's cognitions drive their gender development. The felt pressure component recognizes that the role of environmental factors, particularly pressure from parents, peers, the media and other socializing agents, is instrumental in the development of gendered behaviors (Bandura, 1986; Bem, 1981; Mischel, 1970).

Gender typicality, the predictor variable in this study, represents a nexus of the two perspectives. The self-perception of gender typicality is a cognition and thus, this construct reflects a recognition of the role of cognitions in the development of gender identity. Further, this cognition represents a judgment of how one fits within the

information from the social environment, and thus this construct reflects a recognition of the role of the social environment in the development of gender identity.

Initial research exploring Egan and Perry's (2001) multi-dimensional model of gender identity suggests strongly that gender typicality consistently correlates significantly with several important aspects of psychological adjustment in children and adolescents (Egan & Perry, 2001; Carver, Yunger & Perry, 2003; Yunger, Carver & Perry, 2004; Smith & Leaper, 2005). Specifically, in Egan and Perry's (2001) initial exploration into the relationship between the components of their gender identity model and psychosocial adjustment, gender typicality was positively associated with all of the measures of adjustment that they assessed. Namely, it was positively related to global self-worth, self-perceived social competence, acceptance from male peers and acceptance from female peers. By contrast, a sense of being different or atypical for one's gender group is generally associated with lowered self-esteem, which is an important indicator of psychological adjustment (Carver, Yunger & Perry, 2003; Harter, 1999). Thus, self-perceived gender atypicality is classified as a risk factor because it is typically associated with this significant challenge to positive development. However, development is shaped not only by exposure to risk factors, but by the complex and continuous interplay among risk factors, strengths and protective factors (Cicchetti & Garmezy, 1993; Lerner, 2006; Masten, 2001; 2007). Therefore, it is possible, and perhaps even likely, that children who appraise themselves as gender atypical could experience healthy developmental outcomes, including high self-esteem, if they encounter protective factors that buffer them from the negative costs of the adversity they face.

Researchers investigating this model of gender typicality hypothesized that the relationship between gender typicality and psychosocial adjustment would be moderated by participants' sex (Egan & Perry, 2001). However, the interaction of sex and gender typicality was not significant, suggesting that the impact of gender typicality on adjustment does not vary as a function of an individuals' sex. Further, it was further hypothesized that the relationship between gender typicality and adjustment would be moderated by felt pressure. This hypothesis was not supported, which suggests that the impact of gender typicality on mental health does not depend on the level of pressure that each child feels to conform to gender norms. Longitudinal analyses of the long-term effects of gender typicality on adjustment have found that children who appraised themselves as gender atypical experienced a decline in self-esteem over time (Yunger, Carver & Perry, 2004). These effects were found, again, regardless of the level of felt pressure.

Finally, though children derive their self-perceptions of gender typicality from their similarity to their own conceptualizations of their gender group, gender typicality was predicted by gender-typed behaviors and characteristics for both boys and girls. In boys, gender typicality was predicted by self-efficacy in male-typed, including using tools to make things, playing sports, playing video games, fishing or hunting. Furthermore, gender typicality in boys was predicted by self-efficacy for agentic traits, including being a leader among friends, defending themselves against bullies, taking charge. These agentic traits are traditionally associated with maleness. In girls, gender typicality was predicted by self-efficacy in female-typed activities, including babysitting or looking after younger kids, jump rope or gymnastics, shopping, crafts, and baking or

helping in the kitchen. Furthermore, girls' gender typicality scores were significantly

predicted by self-efficacy for communal traits, including showing emotions, helping

friends with problems following directions, being polite and showing good manners,

which are traditionally associated with femaleness (Egan & Perry, 2001). Therefore,

girls' and boys' self-perceived gender typicality appears to relate, at least partially, to

their conformity to socially prescribed gender norms (Smith & Leaper, 2005).

While these results are compelling in their support of the association between

gender typicality and self-esteem, the importance of contextualizing this relationship

should not be overlooked. Further investigation is necessary to explain the mechanisms

and pathways through which gender typicality impacts self-esteem. In addition, both

gender typicality and self-esteem, as self-perceptions, are intrapsychic variables. Because

gendered expectations for social behavior are communicated through social contexts,

individuals' connections with those contexts have been considered as mechanisms

through which gender typicality relates to self-esteem (Smith & Leaper, 2005).

Therefore, it is critical to examine the relationship between gender typicality and self-

esteem within the context of primary developmental systems.

Measurement of Gender Typicality

The Gender Typicality subscale of Egan and Perry's Multidimensional Gender

Identity Inventory (MGII) will be used to assess children's self-perceptions of their

gender typicality. This subscale is the only measure of gender typicality, as this construct

has only recently emerged within the literature on gender identity. Further, this subscale

has demonstrated good reliability and validity in several studies thus far (Egan & Perry,

2001; Carver, Yunger & Perry, 2003; Smith & Leaper, 2005). The psychometric

properties of this instrument will be described fully in Chapter III.

Self-Esteem as an Outcome Variable

Interest in the role self-evaluations in development has ebbed and flowed

throughout the history of psychology. During the rise of cognitive psychology, self

theorists have conceptualized the self as a cognitive construction, a mental representation

that constitutes a theory of the self (e.g., Epstein, 1973). Subsequently, the process

through which self-evaluations are formed as well as the process through which these

evaluations impact mental health and development has been fairly consistently under

investigation.

Initially, self-esteem was primarily understood as a unidimensional construct.

Coopersmith (1967) proposed that self-esteem was global in nature, arguing that children

do not make self-evaluative distinctions among the various domains of their lives. As a

result, he constructed a measure to assess self-esteem that included items that concerned

various life arenas (e.g., school performance, peer relationships, family relationships). He

employed an additive model in which children's responses were averaged into a single

score that was thought to represent an individual's level of self-esteem. Harter (1983)

debunked this conceptualization of self-esteem with a critique of Coopersmith's

methodology, including selection of item content, the question format and an inadequate

sample size. This critique marked a paradigm shift, in which the prevailing

conceptualizations of self-esteem were multidimensional, which means that children

judge their adequacy and worth differently in different life domains. For instance, it is

now thought that children can evaluate their social self-worth differently than their

academic self-worth. Data supports the shift, indicating that children make differential judgments about their competency in various life arenas (Bracken, 1996; Harter, 1982; 1985; 1990; 1993).

The transition from unidimensional to multidimensional understandings of self-esteem reflects important aspects of developmental theories. Specifically, it is proposed that development is characterized by "progressive differentiation" (Werner, 1957). This principle can be applied to self-evaluations. In this case, differentiation manifests as the increasing ability to recognize and assess different aspects of the self, including making distinct evaluations of one's worth and competence.

Despite the shift to a multi-dimensional conceptualization of self-esteem, with its focus on domain-specific self-evaluations, most researchers agree that children do make global self-evaluations about their general worth as people. This recognition that children possess a global self-worth also reflects developmental and cognitive principles. Specifically, developmental theories suppose that development is marked by not only differentiation, but also integration. That is, the individual is charged with the task of maintaining wholeness throughout the process of differentiation (Werner, 1957). This principle can be applied to self-evaluations, as in this case, integration manifests as the developing individual's ability to make general judgments about him or herself as a person, despite the varying degrees of competency that he or she sees in various life domains.

Furthermore, cognitive theories posit that children's cognitive abilities change qualitatively throughout their lives, and that their cognitions play a constructive role in their development (Kohlberg, 1966). In this case, theorists propose that in middle

childhood, children gain the cognitive ability to form higher-order concepts, which allows them to construct global evaluations of their self-worth as a person (Harter, 1985). Thus, domain-specific self-worth and global self-worth reflect distinct self-evaluative processes, both of which are useful in understanding development. Rosenberg (1979) argues, "Both [domain-specific and global self-esteem] exist within the individual's phenomenal field as separate and distinguishable entities, and each can and should be studied in its own right" (p. 20). Therefore, researchers have retained global self-esteem in their models and measures that applied to middle childhood and beyond.

Self-esteem is an excellent indicator of psychological well-being and mental health among children and adolescents. In particular, self-esteem researchers have focused on investigating the link between self-esteem and various mood states, particularly depression (Harter, 1999). Numerous studies have concluded that the self-evaluative cognitions that comprise self-esteem are critical aspects of depression. Within normative samples, it has been consistently found that children and adolescents who report low self-worth also report depressed affect (Harter, 1986; 1990; 1993). Further, within a sample of inpatient adolescents diagnosed with depression, 80% reported low self-worth (Harter, Marold & Whitesell, 1992). Finally, while low self-esteem is related to negative mental health outcomes, including depression, high self-esteem has been consistently linked with constructive mental health outcomes, including cheerfulness (Battle, 1987; Harter & Jackson, 1993).

In addition, low self-esteem has been related to other negative psychological outcomes. For example, low self-esteem has been shown to relate to a lack of a sense of identity and cynical attitudes about one's self, other people and life; these attitudes often

subsequently lead to a lack of autonomy (Hamancheck, 1988). Self-esteem has also been linked with the development of risky behaviors. In a longitudinal study, McGee and Williams (2002) determined that low self-esteem in 13 year old adolescents predicts suicidal ideation in those adolescents at the age of 15. Finally, disordered eating patterns showed consistent variation with levels of self-esteem (Steinberg & Levine, 1997). Finally, self-esteem research has also established the benefits of high self-esteem. Just as low self-esteem has been correlated with a lack of autonomy, high self-esteem has been linked with a viable sense of agency and autonomy (Hamancheck, 1988). Girls with high self-esteem were less likely to become teen parents and more likely to leave abusive relationships. Further, high levels of self-esteem correlate with high levels of academic achievement (Perry-Burney & Kwaku Takyi, 2002).

The levels of self-esteem reported by children and adolescents tend to vary as a function of their race. In particular, African-American children and adolescents tend to report higher levels of self-esteem than their White counterparts (Gray-Little & Hafdahl, 2000; Twenge & Crocker, 2002). Given the racial diversity within the current sample, race will be used as a covariate in this study in an effort to control extraneous variance in the outcome variable. Particularly, differences in self-esteem between White and non-White participants will be controlled for.

In sum, self-esteem is a strong indicator of both affective and behavioral outcomes. As a result, children's level of self-esteem can signal both positive and negative developmental outcomes.

Measurement of Self-Esteem

The Global Self-Worth subscale of the Harter Self-Perception Profile for Children will be used in this study to assess self-esteem. This subscale is one of the most widely used measures of self-esteem, likely because it is a concise and psychometrically sound measure of global self-evaluations among children (Granleese & Joseph, 1994). Its psychometric properties will be fully described in Chapter III. Other prominent measures of self-esteem include the Coopersmith Self-Esteem Inventory (1967) and the Rosenberg Self-Esteem Scale. The Coopersmith Self-Esteem Inventory conceptualizes self-esteem as a unidimensional construct, and therefore includes items that tap self-evaluations in various life domains and cull them into one total score that is meant to represent an individual's level of self-esteem. Through the work of Harter and others, there is data to suggest that a multi-dimensional assessment of self-esteem more accurately captures the differential self-evaluations made by children (Bracken, 1996; Harter, 1982; 1985; 1990; 1993). Further, evidence supports the conclusion that thought children evaluate themselves differently in different life domains (e.g., academic competence, social acceptability), they also assess their overall worth as a person in a qualitatively different evaluative process (Harter, 1985).

The Rosenberg Self-Esteem Scale (Rosenberg, 1965), like the Harter Global Self-Worth subscale, recognizes that self-evaluations are multi-dimensional, but attempts to assess an individual's global sense of their worth as a person. However, several studies have concluded that this scale measures two meaningful and independent constructs, namely self-derogation and self-enhancement (Shahani, Dipboye & Phillips, 1990).

Contextualizing the Relationship between Gender Typicality and Self-Esteem

Smith and Leaper (2005), who considered adolescents' gender identity in relation to the peer context and psychological adjustment, found that peer acceptance partially mediated the relationship between self-perceived gender typicality and self-esteem. These findings indicate that that the statistical relationship between the predictor variable (i.e., gender typicality) and the outcome variable (i.e., self-esteem) was significantly diminished after controlling for the mediating variable (i.e., peer acceptance). Conceptually, these findings suggest though children who appraise themselves as gender atypical and are not accepted by their peers suffer negative self-worth, children accepted by their peers despite their gender atypicality do not suffer these ill consequences. These data indicate that multiple pathways of gender identity and self-worth exist for youth, and that a sense of connection to the peer context plays a critical role in shaping each individual's pathway.

Despite Smith and Leaper's (2005) important findings, the authors acknowledge a significant limitation in their study. Namely, their data was collected from a sample of adolescent boys and girls who were attending summer sports camps. Sports are strongly gender stereotyped, with their emphasis on competition and physical prowess, and therefore hold different cultural meaning for boys than for girls. Thus, in this specific social context, results for gender typicality and peer acceptance may not be generalizable to more traditional contexts for children and adolescents. As a result, it is important to further explore the impact of gender typicality on self-esteem in relation to the peer context, while also investigating this relationship in relation to other social contexts.

School Belonging as a Moderating Variable

Schools reflect the norms, values and phenomena of more distal social levels (Trickett & Birman, 2005), including the dominant culture. Therefore, schools are a major vehicle for the communication of social gender norms and a primary context for the gender socialization of children and adolescents (Martin, Ruble & Szkrybalo, 2002). Since schools communicate social gender norms, the school context should be incorporated into a developmental-contextualist investigation of the relationship between gender typicality and self-esteem.

School belonging has been defined in numerous ways and overlaps with several other constructs, such as school engagement, school bonding, school membership, school involvement, and identification with school, among others (Heim-Jackson, 2006). These various terms have diverse theoretical backgrounds. This study is concerned specifically with school belonging, which originated within the motivational literature and aligns with the underlying theoretical tenets of the current study, including a developmental-contextual perspective and an integration of social and cognitive processes in development.

School belonging is an outgrowth of the concept of school membership (Wehlage, 1989; Wehlage, Rutter, Smith, Lesko & Fernandez, 1989). A sense of school membership, according to Wehlage, extends beyond simply being enrolled in school to encompass students' perceptions that others in the school, especially the adults, are "for them." Further, Wehlage's concept of school membership involves students' perception that they count in school and that their school is a personally supportive environment.

Goodenow (1992, 1993a, 1993b) expanded on Wehlage's work, using the term, "school belonging" and applying it to motivation. Goodenow's concept of school belonging is defined as students' sense of being accepted, valued, included and engaged by others (i.e., teachers, peers) in the classroom or school setting. In addition, school belonging entails the feeling that a student is an important of the life and activity of the class or school (Goodenow, 1993a; Heim-Jackson, 2006). Goodenow's work with school belonging is situated within the motivation literature. From this perspective, it is proposed that students will pursue the goals that are valued in the school context when they feel as though they belong within that school (Goodenow & Grady, 1993). Thus, Goodenow hypothesizes that school belonging influences motivation, effort, participation and eventually, academic achievement. In concurrence with Goodenow, it has been posited that a sense of belonging fulfills a primary psychological need that bolsters the capacity to engage and achieve in school (Ryan, 2000). Empirical studies have substantiated these theoretical suppositions, demonstrating that school belonging is significantly related to students' expectancy of success, valuing of schoolwork, school motivation and self-reported effort (Goodenow & Grady, 1993).

In discussing the source of academic motivation, Goodenow argues that the social context contributes significantly to students' expectancies, values and motivation-related behaviors. This focus on an individual's contextual variables and their influence on motivation align with ecological theory (Bronfenbrenner & Morris, 2006) and developmental-contexualism (Lerner, 2006), the theoretical lens of this study. Further, much like gender typicality, the predictor variable in this study, Goodenow's concept of school belonging integrates a consideration of students' social contexts with their

cognitive processes. School belonging and gender typicality are both perceptions of the self within the social environment; they both reflect a cognitive appraisal of how one fits with the external environment (Heim-Jackson, 2006). Theoretically, the conceptualization of school belonging mirrors that of gender typicality.

School belonging, in this study, is hypothesized to be a protective factor for gender atypical students not only because of its theoretical relevance to gender typicality and schools' important role in gender socialization, but also because it has been established as a precursor for several aspects of positive development in children and adolescents. For example, high levels of school belonging and related measures are associated with high academic achievement (Anderman, 2002), high academic self-efficacy (Murdock, Hale & Weber, 2001) and high academic motivation (Goodenow & Grady, 1993). Conversely, low levels of school belonging, engagement and connectedness have been associated with delinquency, substance use, early sexual activity, low school achievement, school dropout, low motivation, and poor social and emotional adjustment to school (Anderman, 2002; Marchant et al, 2001). These data indicate that a child's level of school belonging is a harbinger for either positive or negative developmental outcomes and thus, it is an important indicator of psychosocial well-being in children. Thus, school belonging can serve as a risk factor or a protective factor, depending on interaction with other developmental systems and environmental factor.

In this study, it is expected that school belonging will provide a buffering effect for students who report low levels of gender typicality. Evidence suggests that students who reports low levels of gender typicality typically experiences low levels of self-

esteem (Egan & Perry, 2001; Carver et al., 2003; Yunger et al., 2004). This study proposes that these students who report low levels of gender typicality will be protected against the low self-esteem if they experience a strong sense of belonging in their school environment. If this hypothesis is confirmed, school belonging will have changed the direction and/or intensity of the relationship between gender typicality and self-esteem.

Measurement of School Belonging

In this study, school belonging will be measured using the Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993b), which assesses "sense of being accepted, valued, included, and encouraged by others (peers and teachers) in the academic classroom setting and of feeling oneself to be an important part of the life and activity of the class" (p. 25). There are several measures that assess constructs related to school belonging, such as school engagement. Fredricks, Blumenfield, Friedel, and Paris (2003) conceptualize school engagement as a multi-faceted "meta-construct" involving behaviors, emotions and cognitions underlying the active learning process. They have constructed an instrument which taps each of the multiple facets of school engagement. In particular, this instrument is comprised of subscales that assess behavioral engagement, emotional engagement and cognitive engagement. While this scale has proved sound and useful, the current study proposes that the psychological sense of connection to school that comes from being valued and accepted is the protective element of school belonging, particularly for a child may feel that his or her gender expression is not validated by the larger society. As a result, Goodenow's operationalization of school belonging in the PSSM best reflects the theoretical model of the current study.

Social Support as a Moderating Variable

Social support has been linked theoretically and empirically with positive developmental outcomes. In particular, the capacity for friendships to guard individuals against the negative consequences of stressful life events has been proposed, investigated and established over the past few decades. Caplan and colleagues (1975) first posited that the social supports available to individuals by their relationships served to buffer them from the negative effects of stress. Subsequently, numerous studies suggested that social support significantly contributes to an individual's ability to cope with general life stress (Dean & Lin, 1977), life transitions (Cauce, Felner & Primavera, 1982), occupational stress, (House, 1981), and employment disruption (Gore, 1978). In addition to the protective element of social support, it has also been shown to generally enhance psychological adjustment and well being (Campbell, Converse & Roger, 1976). Despite this wealth of studies establishing social support as a protective factor and generally concluding that support from relationships has a positive impact on development, some researchers argue that this topic is understudied (Ladd, Kochenderfer & Coleman, 1996). Specifically, operational definitions of social support and friendships vary greatly within the literature and as a result, the mechanisms through which social support exerts its positive influence are not fully understood (Ladd, 1999).

Though it has been misperceived as one-dimensional, social support is a complex, multi-faceted construct. Bukowski and Hoza (1989) propose a model of social support that delineates three important aspects and indicators of friendship: (1) presence or absence of friendship (i.e., whether a child is a participant in a mutually reciprocated friendship with a peer or not), (2) number of friendships (i.e., extensivity of the social

support network), and (3) quality of friendships (e.g., features of the dyadic relationship, such as the level of support, companionship, or conflict it provides for the child). While much of the literature on social support has focused on the first two aspects discussed by Bukowski and Hoza (1989), the nature friendship quality and its impact on development have begun to garnered attention (Kochenderfer & Ladd, 1997; Ladd, Kochenderfer & Coleman, 1996). In particular, the idea that relational or dynamic features of friendships (e.g., companionship, support and conflict) generate various psychological benefits and costs for children that impact their development and adjustment is under investigation (Asher & Parker, 1989; Berndt, 1989; Parker & Asher, 1993).

Investigations of friendship quality have been aimed at identifying and exploring such friendship features and processes as prosocial behavior, intimacy, attachment, conflict (Berndt & Perry, 1986), reliable alliance, enhancement of worth, instrumental help, companionship, affection (Furman & Buhrmester, 1985), validation, caring and betrayal (Parker & Asher, 1993). There is evidence to suggest that certain friendship qualities and processes are related to both important relationship outcomes and general adjustment outcomes. For example, the friendship processes of perceived validation and caring, companionship and recreation, help and guidance, intimate exchange are positively correlated with friendship satisfaction and negatively correlated with friendship conflict and betrayal (Parker & Asher, 1993). Furthermore, friendship quality indicators have been related to friendship stability, as interviews with fourth and eighth grade students indicate that friends who reported higher levels of intimate exchange were more likely to remain friends over the course of a school year (Berndt, Hawkins & Hoyle, 1986).

In addition to the relationship between friendship quality processes and friendship outcomes, studies have shown linkages between these processes and general adjustment outcomes. Bukowski and Hoza (1990) have demonstrated that security and closeness in pre-adolescent friendships forecast lower levels of adolescent loneliness. In addition, children who report higher levels of loneliness experienced not only less validation, companionship help and intimacy in their friendships, but also more conflict (Parker & Asher, 1993).

In sum, researchers advocate the conceptualization and operationalization of social support to include not only the presence of support, but specific features that indicate friendship quality (Ladd, Kochenderfer & Coleman, 1996). Companionship, validation, aid, self-disclosure, conflict and exclusivity have been identified as critical friendship features. Companionship, defined as engaging in common activities with a friend, and validation, receiving positive feedback or support from a friend, have been determined to be critical aspects of friendship at all ages (Asher & Parker, 1989; Furman & Bierman, 1983). Aid, which is receiving assistance from a friend during times of emotional or instrumental problems, represents a concrete form of support that characterizes relationships between young people (Asher & Parker, 1989; Furman & Bierman, 1983). Self-disclosure, defined as discussing secrets or negative affect with a friend, and conflict, which is the engagement in arguing, bossy, rejecting or other contentious behaviors with a friend, have both been established as significant elements of friendship formation and maintenance in children (Gottman, 1983). Exclusivity, or the perceived selectivity of a friend's liking or association, was included in this measure

because it has been identified as an important aspect of friendships, particularly girls' friendships, in older children (Thorne, 1996).

Developmental-contextualism supports that conclusion that children's interaction styles vary as a function of the specific context (Lerner, 2006). Harter, Waters and Whitesell (1998) have demonstrated that children's relational self-worth differs depending on the specific relationship or context (e.g., family, school). In other words, while a child may feel socially supported and confident with parents or neighborhood friends, he or she may feel lonely with classmates. Thus, measuring social support within a particular interpersonal context renders the construct meaningful. This study will focus on measuring social support within a classroom context.

The association between specific processes and indicators of friendship quality and relationship outcomes, general affective outcomes and school adjustment outcomes securely establishes the potential of classroom social support to be a protective factor. Given that gender socialization occurs in a peer context, it is likely that extent to which one feels supported, neglected or victimized by peers contributes to shaping the developmental pathway from gender identity to psychological well-being. As a result of its relevance to the construct of gender typicality as well as the evidence of its potential protective qualities, perceptions of social support are critical to understanding the relationship between gender typicality and self-esteem (Asher & Parker, 1989; Furman & Bierman, 1983).

In this study, it is expected that classroom social support will provide a buffering effect for students who appraise themselves as gender atypical. Evidence suggests that student who reports low levels of gender typicality typically experience low levels of

self-esteem (Egan & Perry, 2001; Carver et al., 2003; Yunger et al., 2004). This study

proposes that these students who report low levels of gender typicality will be protected

against the low self-esteem if they have strong and supportive peer relationships with

classmates. If this hypothesis is confirmed, classroom social support will have changed

the direction and/or intensity of the relationship between gender typicality and self-

esteem.

Measurement of Classroom Social Support

In an effort to assess friendship quality as a single construct, Ladd and his

colleagues (1996) integrated six important friendship features into a single interview

process. They created a series of interview questions, called the *Friendship Features*

Interview for Young Children (FFIYC) that examines six facets of friendship:

companionship, validation, aid, self-disclosure, conflict and exclusivity. This friendship

quality interview yielded results that evidence strong relationships between each of the

six friendship processes and friendship satisfaction (Ladd, Kochenderfer & Coleman,

1996). In terms of friendship stability, children who experienced their relationship as

more validating and less conflictual maintained their relationships over time. In addition,

these friendship processes were related to a number of school adjustment outcomes. For

example, children who reported higher levels of validation and lower levels of conflict in

their friendships were more likely to report positive feelings with their friends in school.

Additionally, high levels of perceived conflict in friendships were associated with a

number of school adjustment outcomes for boys. For example, higher levels of perceived

conflict for boys was predictive of lower levels of engagement in classroom activities,

lower levels of school liking and higher levels of school avoidance and loneliness.

The FFIYC was distilled into a quantitative instrument that focuses on the friendship features of validation and aid by assessing how often students feel that their classmates would help and support them with various emotional and instrumental problems. This instrument, called the *Perceptions of Peer Support Scale*, will be used in this study. As a quantitative measure, the *Perceptions of Peer Social Support Scale* aligns with the methodology of this study and furthermore, captures two of the most critical friendship features: validation and aid.

<div align="center">The Present Study</div>

The current study continues the investigation of the relationship between self-perceived gender typicality and self-esteem among children by proposing that certain protective factors can moderate the course of the pathway from self-perceived gender atypicality to lowered self-esteem. In particular, this study proposes that school belonging and social support, which both represent relationships with social environments and have been related to positive aspects of development (Goodenow & Grady, 1993; Ladd, Kochenderder & Coleman, 1996), can buffer students from the negative costs associated with feeling atypical within your gender category. School belonging and classroom social support have been chosen as proposed moderators because they have been demonstrated to serve as protective factors for other risk factors. In sum, this study will examine the extent to which school belonging and classroom social support moderate the relationship between gender typicality and self-esteem.

The current study will elaborate on Smith and Leaper's (2005) work, which concludes that peer acceptance partially mediates the relationship between gender typicality and self-esteem. This study will further examine the impact of gender typicality

and self-esteem in relation to the peer context. However, unlike the Smith and Leaper (2005) study, which utilized a sample of children from a sports camp, the sample of the present study will be taken from a more traditional school classroom environment. In addition, this study will explore the relationship between gender typicality and self-esteem in relation to the school context. Specifically, it is hypothesized that social support, representing a connection to the peer context, and school belonging, representing a connection to the school context, will moderate the relationship between gender typicality and self-esteem. In other words, it is proposed that the direction and intensity of the relationship between gender typicality and self-esteem will vary as a function of both level of social support and level school belonging. For example, this study proposes that the relationship between a self-perception of gender atypicality and low self-esteem will be significantly weaker for students who feel strongly supported by peers in their classroom and/or a strong sense of belonging at school.

Though the present study is similar to Smith and Leaper's in that it seeks to contextualize the relationship between gender typicality and self-esteem by incorporating aspects of the social context (e.g., peers), this study will employ a different methodology than the Smith and Leaper (2005) study. While Smith and Leaper (2005) tested for mediation, the present study proposes that school belonging and classroom social support will moderate the relationship between gender typicality and self-esteem. While a mediating variable explains the relationship between the predictor variable and the criterion variable, a moderating variable affects the direction and/or intensity of the relationship between the predictor variable and the criterion variable. This study proposes moderation because this research design aligns with the theoretical framework of this

paper, with its focus on risk and protective factors. A moderating design is best suited to capture the buffering effect that school belonging and/or classroom social support may have on the relationship between gender typicality and self-esteem (Frazier, Tix & Barron, 2004).

This study rests on the principles of developmental-contextualism. Particularly, its aim to situate the relationship between two intrapsychic variables (i.e., gender typicality, self-esteem) within various social contexts reflects the developmental-contextual principle that underscores the critical role of context in development. Furthermore, the current study recognizes that throughout the lifespan, developmental pathways are constructed through the interaction of risk and protective factors. As a result, it is hypothesized that the moderating variables in this study will serve as protective factors for children who perceive themselves as gender atypical.

Research Hypotheses

This study proposes the following hypotheses.

1. Given that previous studies provide evidence of a relationship between gender typicality and self-esteem:

    a. It is proposed that higher levels of gender typicality will predict higher levels of self-esteem.

    b. It is proposed that lower levels of gender typicality will predict lower levels of self-esteem (see Figure 1).

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┌─────────────────────┐                              ┌─────────────────────┐
│                     │                              │                     │
│  Gender Typicality  │  ──────────────────────▶     │  Global Self-esteem │
│                     │                              │                     │
└─────────────────────┘                              └─────────────────────┘
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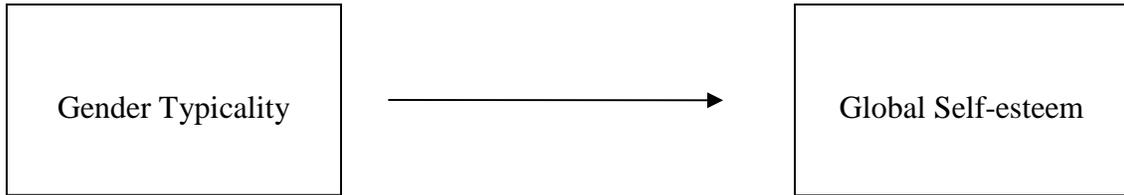
Figure 1. Illustration of Hypothesis 1

2. Given that previous studies have found that a sense of school belonging is

   related to positive mental health outcomes,

   a. It is proposed that higher levels of school belonging will predict higher

      levels of self-esteem.

   b. It is proposed that lower levels of school belonging will predict lower

      levels of self-esteem (see Figure 2).

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┌─────────────────────┐                              ┌─────────────────────┐
│                     │                              │                     │
│  School Belonging   │  ──────────────────────▶     │  Global Self-esteem │
│                     │                              │                     │
└─────────────────────┘                              └─────────────────────┘
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Figure 2. Illustration of Hypothesis 2

3. Given that previous studies have found that social support is related to

   positive mental health outcomes,

   a. It is proposed that higher levels of classroom social support will

      predict higher levels of self-esteem.

b. It is proposed that lower levels of classroom social support will predict

lower levels of self-esteem (see Figure 3).

Figure 3. Illustration of Hypothesis 3

4. School belonging is expected to significantly moderate the relationship

between gender typicality and self-esteem. Given that school belonging is

been established as a protective factor, it is proposed that school belonging

will have a buffering effect on the relationship between gender typicality and

self-esteem. So that:

a. The relationship between high levels of gender typicality and high

levels of self-esteem is expected to be significantly weaker for students

with low levels of school belonging than for students with high levels

of school belonging.

b. The relationship between low levels of gender typicality and low

levels of self-esteem is expected to be significantly weaker for students

with high levels of school belonging than for students with low levels
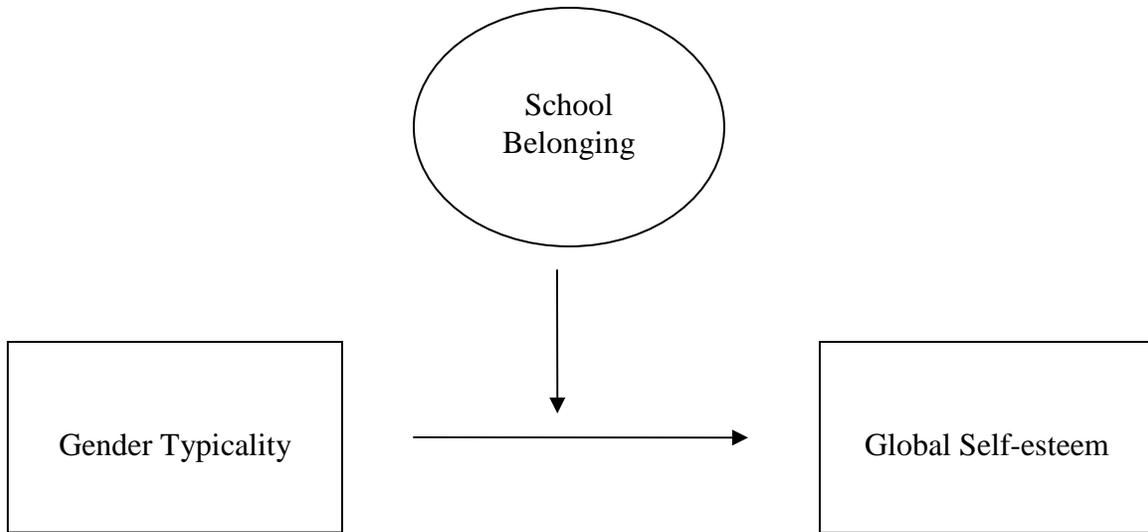
of school belonging (see Figure 4).

Figure 4. Illustration of Hypothesis 4

5. Social support is expected to significantly moderate the relationship between

    gender typicality and self-esteem. Given that social support is been

    established as a protective factor, it is proposed that social support will have a

    buffering effect on the relationship between gender typicality and self-esteem.

    So that:

    a. The relationship between high levels of gender typicality and high

        levels of self-esteem is expected to be significantly weaker for students

        with low levels of classroom social support than for students with high

        levels of classroom social support.

    b. The relationship between low levels of gender typicality and low

        levels of self-esteem is expected to be significantly weaker for students

        with high levels of classroom social support than for students with low

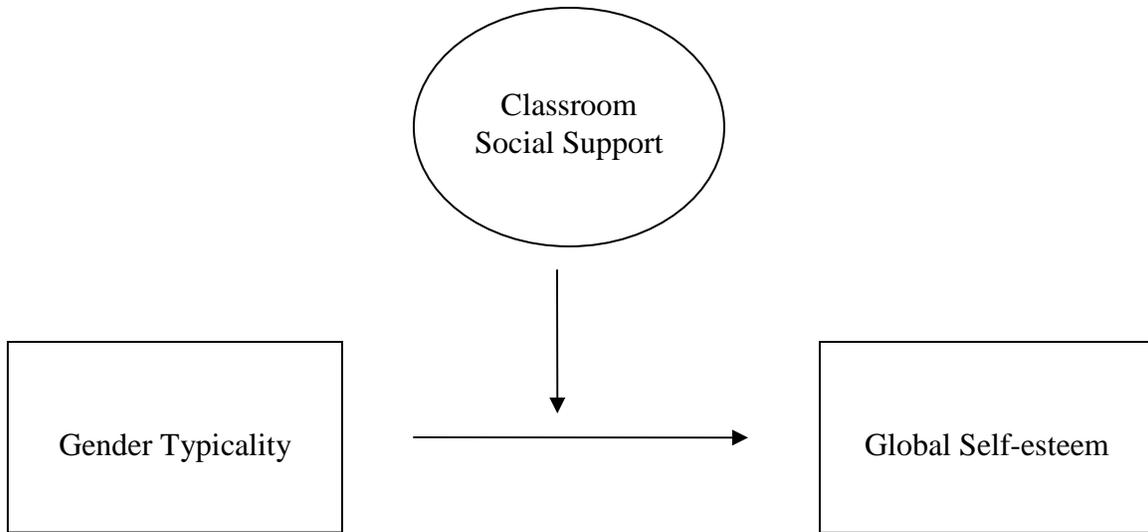   levels of classroom social support (see Figure 5).

Figure 5. Illustration of Hypothesis 5

6. Gender is expected to significantly moderate the relationship between gender typicality and self-esteem. It is proposed that the direction and/or intensity of the relationship between gender typicality and self-esteem will vary as a function of gender. Given that masculine gender roles are bound with greater rigidity than feminine gender roles (Archer & Lloyd, 2002), it is proposed that the relationship between gender typicality and self-esteem will be stronger for boys than for girls.
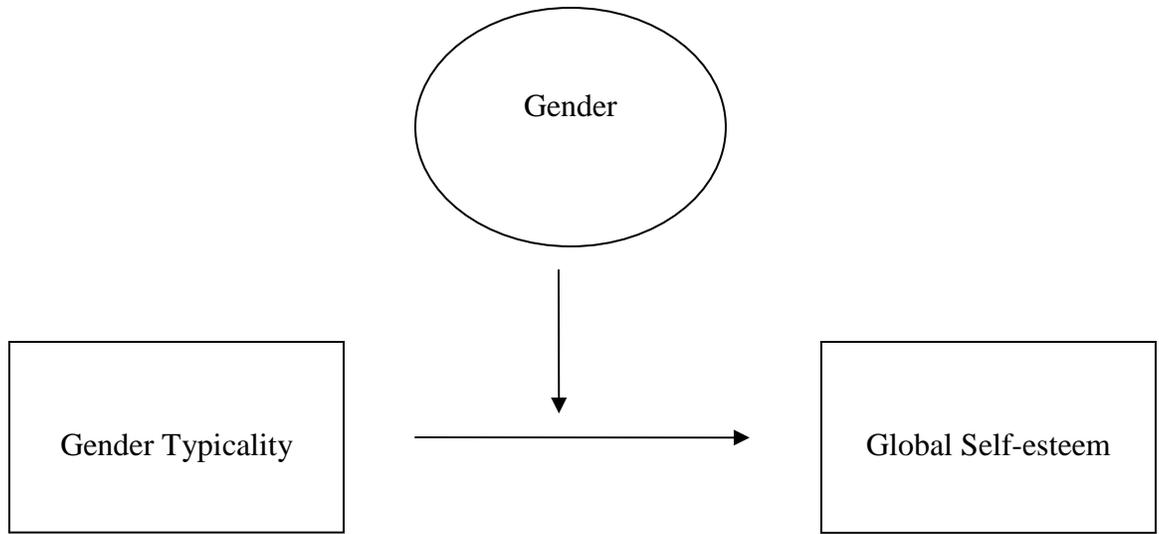
Figure 6. Illustration of Hypothesis 6

CHAPTER III: Method

This chapter will describe the research design of the current study. Specifically, this study's participants, instruments, data collection procedure, and data analysis strategies will be discussed.

Research Design

This study employs a cross-sectional, passive research design. Causal inferences will be made passively, based upon variations in the dependent variable (self-esteem) that can be systematically linked to differences in the independent variables (gender typicality), two moderating variables (school belonging, social support) and two covariates (race, grade level).

Participants

Cohen (1992) suggests that for the current study, which has five predictor variables (i.e., grade level, race, gender typicality, school belonging, gender typicality X school belonging for one moderating analysis; grade level, race, gender typicality, classroom social support, gender typicality X classroom social support for the other moderating analysis) and medium expected effect sizes, approximately 89 participants would be needed. This study recruited 3rd and 5th grade students enrolled in three public schools and one Catholic school within the city of Boston. A total of 104, including 53 girls and 51 boys, students received parental consent to participate in this study and completed each of the measures. Of the total sample, 60 were 3rd graders and 44 were 5th graders. The racial makeup of the current sample was 26.9% Black (e.g., African, African-American, Carribean), 26.0% Latino/Latina (e.g., Puerto Rican, Mexican, Central/South American, 22.1% White (non-Hispanic), 20.2% Asian or Asian-American,

1% Native-American. Finally, 3.8 % of participants did not know their race or chose not to respond. This information was attained using a self-report measure called the *Demographic Questions Form*, which is described in the *Measures* section of this chapter. More detailed information about the demographics of participants from each individual school is now provided.

School A is a public school. Three 3rd grade classes and three 5th grade classes at School A were invited to participate in this study. Twenty-two 3rd graders from School A received parental consent to participate in this study and complete the necessary measures. Of these 22 3rd graders from School A, 10 were girls and 12 were boys. Ten 5th graders from School A were given parental consent and completed the necessary measures. Of these 10 5th grade participants from School A, seven were girls and three were boys. In sum, participants from School A comprised 30.8% of the total sample. The racial makeup of the subset of the sample from School A was 25% Black (e.g., African, African-American, Carribean), 37% Latino/Latina (e.g., Puerto Rican, Mexican, Central/South American, 10% White (non-Hispanic) and 28% Asian or Asian-American. With regard to socioeconomic status statistics, students were not asked to report family income or social class. Instead, the percentage of students in grades 3 and 5 who qualify for free or reduced lunch will be reported as a proxy for students whose families live below the poverty level. In School A, approximately 72% of all students live below the poverty level.

School B, also a public school, has two 3rd grade classes and one 5th grade class. Nine 3rd graders from School B received parental consent and completed the required measures. Of these nine 3rd graders, five were boys and four were girls. Seven 5th graders

were given parental consent and completed the measure to participate in this study. Four

of the seven 5th graders were girls and three were boys. A total of 16 students from

School B participated in this study, comprising 15.4% of the current sample. The racial

makeup of the School B subset of the sample was 12.5% Black (e.g., African, African-

American, Carribean), 50% Latino/Latina (e.g., Puerto Rican, Mexican, Central/South

American, 25% White (non-Hispanic) and 12.5% Asian or Asian-American.

Approximately 81% of the 3rd and 5th grade students at School B live below the poverty

level.

School C, the third and final public school involved in this study, has two 3rd

grade classes and one 5th grade class. Sixteen 3rd graders from School C received parental

consent and completed the required measures. Of these 16 3rd graders, ten were girls and

six were boys. Fifteen 5th graders from School C were given parental consent and

completed the measure to participate in this study. Nine of the fifteen 5th graders were

girls and six were boys. So, a total of 31 students from School C participated in this

study, comprising 29.8% of the current sample. The racial makeup of the School C subset

of the sample was 26% Black (e.g., African, African-American, Carribean), 23%

Latino/Latina (e.g., Puerto Rican, Mexican, Central/South American, 3% White (non-

Hispanic), 45% Asian or Asian-American and 3% Native American. Finally,

approximately 77% of the students in grades 3 and 5 at School C live below the poverty

level.

Finally, School D is the only Catholic school in this study. One 3rd grade class and

one 5th grade class participated in this study. Twelve 3rd graders and twelve 5th graders

received parental consent and participated in the study. Of these twelve 3rd grade

participants, six were boys and six were girls. Of the twelve 5th grade participants, three there were girls and nine were boys. So, a total of 24 students from School D participated in this study, comprising 23.1% of the current sample. The racial makeup of the School D subset of the sample was 13% Black (e.g., African, African-American, Carribean), 12% Latino/Latina (e.g., Puerto Rican, Mexican, Central/South American, 67% White (non-Hispanic) and 8% Asian or Asian-American. Based on the number of students who receive scholarships to attend this school, 30% of the student population is living below the poverty level.

<div align="center">

Measures

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Each of the variables in this study (i.e., gender typicality, school belonging, social support, self-esteem) was measured by student self-report measures. Demographic information was collected.

Demographic Information

Students were given a demographic questionnaire. Specifically, they were asked to provide the following information: age, grade level, gender and ethnicity. This demographic information was obtained using the *Demographic Questions Form* (DQF; See Appendix A), which was adapted from a demographic questionnaire developed by Jackson (2006).

Gender Typicality

Gender typicality, the predicator variable in this study, is defined as self-perceived similarity to others of one's gender and was measured using the Gender Typicality subscale of Egan and Perry's (2001) MGII (see Appendix B). This subscale consists of 6 items. The gender typicality subscale assessed the degree to which

participants believed they were similar to the typical girl or boy. Examples of items are, "Some girls think they are a good example of being a girl BUT Other girls don't think they are a good example of being a girl," and "Some girls don't feel that the things they like to do in their spare time are similar to what most girls like to do in their spare time BUT Other girls do feel that the things they like to do in their spare time are similar to what most girls like to do in their spare time" (Egan & Perry, 2001, p. 463). First, participants answer the question, "Which is true of you?" Next, the participants indicate how true the statement is for him or her, choosing between responses, "really true" or "sort of true." Items are scored on a 4-point scale. Two of the six items are inverted and require reverse scoring. Scale scores are computed by averaging across items scores that range from 1 to 4.

Egan and Perry (2001) reported a Cronbach's alpha of .78 for the Gender Typicality subscale of the MGII. The test-retest reliability coefficient for this subscale was .64, with a six-month lapse between administrations. Because this subscale is the only measure of gender typicality, per se, convergent validity was established by examining the relationships between scores on this measure with measures of identification with traits and enjoyment of activities traditionally associated with either maleness or femaleness. In girls, gender typicality was predicted by female-typed activities and communal traits, which are traditionally associated with femaleness (Egan & Perry, 2001). In boys, gender typicality was predicted by male-typed activities and agentic traits, which are traditionally associated with maleness. Therefore, girls' and boys' self-perceived gender typicality appears to relate, at least somewhat, to the extent to which they conform to socially prescribed gender norms (Smith & Leaper, 2005).

Further, the relationships among subscales of the MGII further establish the convergent validity of the Gender Typicality subscale. The Gender Typicality subscale was significantly related to the Gender Contentedness subscale of MGII, with a correlation of .41 for a sample of 182 children from the fourth to the eight grades. For girls, the correlation between Gender Typicality and Gender Contentedness was .30, which was significant at the $p < .01$. For boys, the correlation between Gender Typicality and Gender Contentedness was .47, which was also significant at the $p < .01$ level. The theoretical underpinnings of gender typicality support these relationships that were found empirically (Egan & Perry, 2001).

Self-Esteem

Self-esteem is defined as an overall sense of one's worth as a person. In this study, self-esteem is the outcome variable and was measured using the Global Self-Worth (see Appendix C) subscale of the Harter Self-Perception Profile for Children (Harter, 1985). This self-perception profile contains five domain-specific subscales: Scholastic Competence, Athletic Competence, Peer Likeability, Physical Appearance and Behavioral Conduct. This profile also includes a Global Self-Worth scale that includes a set of items that assess how an individual evaluates his or her overall worth as a person. It is important to note that the Global Self-Worth score is not the sum of the domain-specific subscale scores, but rather it represents an entirely different construct (Harter, 1990).

The response format for this measure is unique. The child is presented with two alternative structures that describe two different kinds of child and he or she is invited to decide which kind of child he or she is most like. Then, the child has to decide whether

the description is "really true" or "sort of" true for him or her. Evidence suggests that this kind of response format reduces the tendency to give socially desirable responses (Harter, 1982). Half of the items begin with a positive sentence, reflecting high competence and half of the items begin with a negative sentence, reflecting low competence. An example item reads, "Some kids are often *unhappy* with themselves BUT Other kids are pretty pleased with themselves." This response format is called a four-point forced alternative (Harter, 1982). The items are counterbalanced and distributed along a 4-point scale. Scale scores are computed by averaging the item scores that range from 1 to 4.

The Self-Perception Profile or individual subscales from it have been employed in numerous studies in the developmental and social developmental literature (Hoare & Mann, 1994; Hoge & McSheffrey, 1992), as well as in studies exploring self-perceptions in various clinical related contexts (Meijer et al., 2000, Schumann et al., 1999). Internal consistency coefficients in validation samples range from .78 to .84. The construct validity of the Global Self-worth subscale is supported by evidence that significantly predicts outcomes on the Rosenberg Self-Esteem scale, another unidimensional measure of global self-esteem. Finally, studies have shown that this scale can distinguish between groups whose differences in self-worth are theoretically grounded. For example, studies have found lower levels of self-esteem for victims of bullying, while bullies report self-esteem levels that are comparable with those not involved in the bullying situation (Neary & Joseph, 1994).

School Belonging

To measure school belonging, one of the moderating variables in this study, the Psychological Sense of School Membership Scale (see Appendix D; PSSM; Goodenow,

1993b) was used. One of the most widely used measures of school belonging (Jackson, 2006), the PSSM is an 18-item scale that includes items about the students' perceived personal acceptance, inclusion, respect, and encouragement from others at school. Example items are "People at this school are friendly to me," "I can really be myself at this school," "I am included in lots of activities at this school," "The teachers here respect me," and "People here know I can do good work." Students rate the items on a five-point Likert-type scale. Choices on this scale include *Never, Hardly Ever, Sometimes, Most of the Time and Always*. Five of the 18 items are inverted and will be reverse scored. Scale scores are generated by averaging all of the item scores, which range from 1 to 5.

Internal consistency ratings range from .77 to .88 (Goodenow, 1993b). The construct validation of the PSSM has been established through findings of significant group differences consistent with theoretically grounded predictions. For example, lower PSSM scores have been found among school newcomers, while higher PSSM scores have been found among students with elevated social standing and among students in suburban rather than urban school settings. Further, school belonging, as measured by the PSSM, has been associated with academic motivation, expectancy of success and valuing of education (Goodenow & Grady, 1993).

Social Support

Defined as a perception of peer acceptance and quality of friendships within the classroom context, social support is one of the moderating variables in this study and was measured using 10 items from the *Perceptions of Peer Social Support Scale* (see Appendix E; Ladd, Kochenderfer & Coleman, 1996). This instrument measures social support and peer acceptance within the classroom and has been used in studies of

friendship quality and peer acceptance (Ladd et al., 1996; 1997). The short form of this measure that is employed in this study was adapted for the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development. In Ladd's research, children responded to each item with yes or no. When the yes response was given, the children then indicated whether they experienced the item *just sometimes* or *a lot of the time*. For the NICHD Study of Early Child Care and Youth Development, participants respond on a 5-point Likert scale. Choices on this scale are *Never, Hardly Ever, Sometimes, Most of the Time,* and *Always.* Example items include "Are there kids in your class who make you feel happy?" and "Are there kids in your class who help you if you hurt yourself on the playground?" Scales scores are computed by averaging all of the item scores, which range from 1 to 5.

In two administrations of the *Perceptions of Peer Social Support Scale*, Ladd and colleagues (1996) reported Cronabach's alphas of .85 for the fall and .88 for the spring. In the NICHD study, internal consistency for the short form of this instrument, which will be used in this study, was measured at .92. Construct validity of the *Perceptions of Peer Social Support Scale* is supported by findings of significant correlations between perceived social support and the friendship features of validation and aid, as measured by the *Friendship Features Interview for Young Children* (Ladd, Kochenderfer & Coleman, 1996).

Procedures

This study includes both a collection of original data and the use of archived data. Procedures for the collection of new data will be described first. Then, the procedure for matching newly collected data to archived data for each individual participant will be

described. The original data that was collected for this study are students' self-reported levels of gender typicality and self-esteem. Prior to this collection of original data, information had already been collected on students' school belonging and social support.

Prior to administration of self-report gender typicality and self-esteem scales, the investigator obtained the permission from the Boston College Institutional Review Board (IRB) and the Boston Public Schools IRB. Written permission was obtained from each school principal (See Appendix F). Coordinators of the health program in the participating schools were informed by email and a letter of the purpose of the study and invited to help facilitate data collection in each school. Then, classroom teachers were informed of the study by a letter (Appendix G), in which they were asked to work with the health coordinators to distribute parental consent forms for students to take home (Appendix H). The survey was described to parents along with the procedure for administering the instruments. Parents were invited to give written consent for their child to participate in this exploration of the effects of how similar a child feels to other boys or girls. A small incentive was offered to children who return consent forms regardless of whether consent was granted.

Students whose parents gave consent completed the Gender Typicality subscale of the MGII and Harter's Global Self-Worth scale during the school day, at a time agreed upon by the investigator and the classroom teacher. During data collection visits, the principal investigator took separate groups of boys and girls to available, quiet spaces in the school. Once the groups were setting, the investigator introduced the study, provided information and instructions for completing the survey while inviting the students to complete student assent forms (Appendix I). Then, the items were read aloud to

participating students. Students were encouraged to ask questions if they do not understand the format or any of the words used in the measures and instructed to answer each item as honestly as possible. The entire administration process took about 10 to15 minutes per group.

To protect the identities of student participants, identification numbers assigned by Boston Public Schools were used. With proper permission from Boston Public Schools, the principal investigator obtained a list of student in the participating grades and the identification numbers for those students. Students were given a packet that included both measures and a student assent. Students wrote only their names on the student assent form; identification numbers were recorded on the actual surveys. Once the child has indicated his or her assent and completed the surveys, the match of names and ID numbers were checked and the student assent form were removed from the packet. Therefore, names were used only briefly, as once their facilitative goal has been met, they were removed.

Data on the two moderating variables in this study (i.e., school belonging, social support) were previously collected as a part of a large-scale evaluation of Boston Connects. Boston Connects is a student support intervention in several Boston Public Schools that seeks to reduce non-academic barriers to learning and to promote health development for all students. As a member of the Boston Connects research team, the principal investigator for the current study has obtained permission to access the data from this first round of the Boston Connects evaluation. Thus, the school belonging and classroom social support data for the current participants were combined with the newly collected data on gender typicality and self-esteem to comprise the current data set.

Matching the original data with the archived data was possible because the same Boston

Public School identification numbers were used in both data collections.

Effect Size

To ensure sufficient power (.80) in a study with five predictor variables (i.e.,

grade level, race, gender typicality, school belonging, gender typicality X school

belonging for one moderating analysis; grade level, race, gender typicality, classroom

social support, gender typicality X classroom social support for the other moderating

analysis) and a medium expected effect size, approximately 89 participants are needed

(Cohen, 1992). The final sample consisted of 104 participants and thus, this study had

sufficient power to detect medium effect sizes.

CHAPTER IV: Results

In this chapter, the data analyses process and methods of this study will be described. First, the procedure for addressing missing data will be discussed. Then, results of the preliminary analyses will be presented, including the range, mean, standard deviation of the predictor and criterion variables, as well as the internal consistency of each of the measures used in this study. Finally, the method of testing each hypothesis will be described and the results of the primary analyses will be presented.

Addressing Missing Data

Prior to data analysis, missing data were identified and addressed using the following criteria. If the particular measure for which data is missing had at least 80% of items complete, the mean substitution method was employed. In this method, for each missing item, the mean for that participant's measure was substituted. This researcher planned to eliminate all participants who were missing 20% or more of responses for any given measure were missing. However, no participant met this criterion and therefore none were eliminated.

Preliminary Analyses

Preliminary analyses were conducted to calculate the range, mean and standard deviation of predictor variables and the outcome variable. Internal consistency reliabilities for each measure were also tabulated (see Table 1). Further, the distributions of each of the variables were examined to determine the normality of their ranges. All of the study variables' values for skewness and kurtosis fell within the acceptable range, between -1.0 and 1.0, indicating that their distributions were roughly normal and that transformations were not required to proceed with data analysis.

Table 1.
Statistical Characteristics of Measures

Variable	Instrument	M	SD	A
Gender Typicality	Gender Typicality Subscale –MGII	.80	75	75
School Belonging	Psychological Sense of School Membership Scale	.37	61	62
Social Support	Perceptions of Peer Social Support Scale – Short Form	.62	87	88
Self-esteem	Global Self-Worth subscale – Self-Perception Profile	.29	61	70

Characteristics of Measures for Each Variable

Gender Typicality. Gender typicality, the predictor variable in this study, is

defined as self-perceived similarity to others of one's gender and was measured using the

Gender Typicality subscale of the Multidimensional Gender Identity Inventory (Egan &

Perry, 2001; see Appendix B). This subscale consists of 6 items, which are scored on a 4-

point scale. A score for this measure was computed by averaging across items scores that

range from 1 to 4, with higher scores indicating higher levels of gender typicality. In this

sample, scores on this subscale ranged from 1.00 to 4.00, with a mean of 2.80 and a

standard deviation of .75. The Cronbach's alpha internal consistency statistic for this

scale recorded for this sample was .75.

School Belonging. To measure school belonging, one of the moderating variables

in this study, the PSSM (Goodenow, 1994) was used. The PSSM is an 18-item scale that

includes items about the students' perceived personal acceptance, inclusion, respect, and

encouragement from others at school. Students rate the items on a five-point Likert-type

scale. Choices on this scale are *Never, Hardly Ever, Sometimes, Most of the Time,* and

Always. Five of the 18 items are inverted and were reverse scored. A score for this

measure was generated by averaging all of the item scores, which range from 1 to 5. In this sample, scores on this measure ranged from 2.00 to 4.70, with a mean of 3.37 and a standard deviation of .61. The Cronbach's alpha internal consistency statistic for this scale with the current sample was .62.

Classroom Social Support. Classroom social support is one of the moderating variables in this study and was measured using the *Perceptions of Peer Social Support Scale – Short Form*, a ten-item measure to which participants respond on a 5-point Likert scale. Choices on this scale are *Never, Hardly Ever, Sometimes, Most of the Time,* and *Always.* A score for this measure was computed by averaging all of the item scores, which range from 1 to 5. In this sample, scores on this scale ranged from 1.20 to 5.00, with a mean of 3.62 and a standard deviation of .87. The Cronbach's alpha internal consistency statistic for this scale within the current sample was .88.

Self-Esteem. Self-esteem is the outcome variable and it will be measured using the Global Self-Worth (see Appendix C) subscale of the Harter Self-Perception Profile for Children (Harter, 1985), which employs a four-point, forced-alternative response format. A score for this measure was computed by averaging the item scores that range from 1 to 4. In this sample, scores on this measure ranged from 1.83 to 4.00, with a mean of 3.29 and a standard deviation of .61. The Cronbach's alpha internal consistency statistic for this scale within the current sample was .70.

Univariate Outliers

Following the procedure outlined by Tabachnick and Fidell (1989), the data were also examined for univariate outliers. First, a *z* score was computed for all of the measures utilized in the present study. According to Tabachnick and Fidell (1989),

univariate outliers were indicated by a *z* score greater than or equal to 3.67, at *p* =.001

criterion. Using this standard, no univariate outliers were identified in the current sample.

Correlations among Study Variables

A Pearson product moment correlation matrix was produced to determine

significant correlations between the predictor and outcomes variables and to assess

multicollinearity among predictor variables (see Table 2).

Table 2.
Correlations among Study Variables

Measure	1	2	3	4
1. Gender Typicality	-			
2. School Belonging	.305**	-		
3. Social Support	.235**	.596**	-	
4. Self-Esteem	.518**	.241*	.192	-

* *p* < .05. ** *p* < .01.

The predictor variable, gender typicality, was significantly correlated with all of

the other study variables. These significant correlations ranged from .235 (Classroom

Social Support) to a high of .518 (Global Self-Worth). Each of these correlations is

significant at the *p* < .01 level. School belonging, one of the proposed moderating

variables in the study, was also significantly correlated with all of the other study

variables, with the correlations ranging from .241 (Global Self-Worth), which is

significant at the *p* < .01 level, to .596 (Classroom Social Support), which is significant at

the *p* < .01 level. Since most of the study variables are significantly correlated with one

another, it is notable that Classroom Social Support was not found to be correlated with

the outcome variable, Self-Esteem.

Primary Analyses

The following discussion summarizes the analyses conducted to test the

hypotheses proposed in Chapter II. Each hypothesis was tested using a hierarchical

regression technique. For each regression, the amount of variance accounted for (R^2) will

be reported. When relevant, the amount of unique variance explained (ΔR^2) will also be

reported. The Standardized Betas (β), which are regression coefficients that account for

the standard deviations of the variables, will also be reported. These statistics will be used

to compare variables that are measured in different units, which is the case for the

variables in this study. For hypotheses that require a test of moderation, a series of steps

were conducted according to the procedure detailed by Frazier, Tix, and Barron (2004).

First, scores from the independent variables of interest were standardized, that is, they

were converted to z-scores. Then, both the standardized predictor variable and the

standardized moderator variable were entered into the model first. Next, the interaction of

the standardized predictor and standardized moderator were entered. If the interaction

term accounts for a significant amount of unique variance in the dependent variable self-

esteem, above and beyond that accounted for by the standardized predictor variable and

the standardized moderator variable, then there is significant moderation. In other words,

if there is a significant difference in R^2 values obtained in the two steps, then there is

significant moderation.

Finally a fit analysis will be conducted for each hypothesis. The purpose of a fit

analysis is to ensure that the assumptions underlying the Ordinary Least Squares (OLS)

regression analysis have not been violated. There are several assumptions associated with

OLS regression analysis. The first is that the independent variable is a fixed variable. In

other words, the values for the predictor variable can be replicated. Second, OLS assumes that the independent variables are measured without error. It also assumes that the regression of Y on X is linear, or that there is a linear relationship between the independent and dependent variables. The remaining three assumptions of OLS analysis concern the residuals. It is assumed that the mean of errors for each observation over many replications is zero. Additionally, errors are assumed to be independent, or uncorrelated. In other words, errors associated with one observation are not correlated with errors associated with any other observation. Finally, the OLS assumption of homoscedasticity holds that the residuals have equal variance throughout the range of the predictors and that the distribution of the residuals is normal. In order to ensure that regression models do not violate the OLS assumptions, the studentized residual histogram, normal probability plot, and residual plot were examined.

Race as a Covariate

Decades of research has established that different racial groups report significantly different levels of self-esteem (Gray & Hafdahl, 2000; Porter & Washington, 1979; Twenge & Crocker, 2002). Most notably, a Black advantage in self-esteem has been well-documented and appears to be currently widening (Twenge & Crocker, 2002). Though the particular discrepancy between Blacks and White has received the most focus in the literature, researchers provide evidence that Blacks hold an advantage in self-esteem over other racial groups as well, including Latino/Latinas, Asians and American Indians (Twenge & Crocker, 2002). Thus, in each of the following analyses, identifying as Black vs. non-Black has been controlled for, such that the variance associated with the Black advantage in self-esteem has been partialled out. By

controlling for the variance in the self-esteem variable associated with the Black self-esteem advantage, this study will be better able to assess the accuracy of the hypotheses put forth.

Hypothesis 1: Gender Typicality Predicting Self-Esteem

To test the hypothesis that gender typicality would be significantly and positively related to self-esteem, a hierarchical regression technique was employed. First, the covariates, grade level and race, were entered into the regression model. Then, scores on the predictor variable, gender typicality, were regressed upon scores on the criterion variable, self-esteem. After controlling for grade level and race (i.e., Black vs. non-Black), participants' levels of gender typicality predicted 27.7% of the variance in self-esteem, which was statistically significant ($R^2=.277$, $p<.05$). An examination of the standardized beta coefficient produced in this analysis ($\beta = .508$) indicates that the relationship between gender typicality and self-esteem is positive and significant (see Table 3).

Then, the distribution of the error for this regression line was examined through the studentized residual histogram, normal probability plot, and residual plot. The distribution of the studentized residuals has a mean of zero and a standard deviation of 1.0. Most of the residuals fall within the interval defined by -2.5 to 2.5, suggesting a normal distribution. Additionally, the normal probability plot shows that the values correspond and lay close to the probability line. Examination of the residual plot revealed that the residuals were fairly randomly distributed around zero. This information suggests that the regression model appears to meet the ordinary least squares (OLS) assumptions.

Thus, Hypothesis 1, which stated that gender typicality would be positively and

significantly related to self-esteem, was confirmed.

Table 3.
Regression Model for Gender Typicality Predicting Self-Esteem

Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black vs. non-Black)	.022	--	-.141
	Grade level		--	.035
2	Gender typicality	.277*	.255*	.508*

*$p < .05$

Hypothesis 2: School Belonging Predicting Self-Esteem

A hierarchical regression technique was used to test the second hypothesis, which

proposed that school belonging would be significantly and positively related to self-

esteem. In the initial step, the covariates, grade level and race (i.e., Black vs. non-Black),

were entered into the regression model. Second, scores on the predictor variable, school

belonging, were regressed upon scores on the criterion variable, self-esteem. This

analysis determined that participants' levels of school belonging predicted 7.5% of the

variance in self-esteem, which was statistically significant ($R^2=.075$, $p<.05$). The

standardized beta coefficient generated in this analysis (β = .231) indicates that the

relationship between school belonging and self-esteem is positive and significant (see

Table 4).

Then, the distribution of the error for this regression line was examined through

the studentized residual histogram, normal probability plot, and residual plot. The

distribution of the studentized residuals has a mean of zero and a standard deviation of

1.0. Most of the residuals fall within the interval defined by -2.5 to 2.5, suggesting a

normal distribution. Additionally, the normal probability plot shows that the values

correspond and lay close to the probability line. Examination of the residual plot revealed

that the residuals were fairly randomly distributed around zero. This information suggests

that the regression model appears to meet the ordinary least squares (OLS) assumptions.

Thus, Hypothesis 2, which proposed that school belonging would be positively and

significantly related to self-esteem, was confirmed.

Table 4.
Regression Model for School Belonging Predicting Self-Esteem

Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black v. non-Black)	.022	--	-.141
	Grade level		--	.035
2	School belonging	.075*	.053*	.231*

p < .05

Hypothesis 3: Classroom Social Support Predicting Self-Esteem

The third hypothesis proposed that classroom social support would be

significantly and positively related to self-esteem and was tested using a hierarchical

regression technique. After controlling for grade and race (i.e., Black vs. non-Black),

scores on the predictor variable, classroom social support, were regressed upon scores on

the criterion variable, self-esteem. This analysis found that participants' levels of school

belonging predicted 5.5% of the variance in self-esteem, which was not statistically

significant at the *p* < .05 level (R^2=.055, *p* =.063). However, this relationship approached

significance. An examination of the standardized beta coefficient produced in this

analysis (β = .183) indicates that the relationship between classroom social support and

self-esteem is positive, though non-significant. The residual analysis suggests that the

regression model appears to meet the ordinary least squares (OLS) assumptions.

Hypothesis 3, which proposed that classroom social support would be positively and

significantly related to self-esteem, was not confirmed (see Table 4).

Table 5.
Regression Model for Classroom Social Support Predicting Self-Esteem

Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black vs. non-Black)	.022	--	-.141
	Grade level		--	.035
2	Classroom Social Support	.055	.033	.183

*p < .05

Hypothesis 4: School Belonging as a Moderator

The hypothesis that school belonging would significantly moderate the

relationship between gender typicality and self-esteem was tested using a hierarchical

regression analysis. First, the covariates, grade and race (i.e., Black vs. non-Black), were

entered into the regression model. Then, the standardized predictor variable (gender

typicality) and the standardized moderator variable (school belonging) were entered into

the model. Finally, the interaction term of the predictor and the moderator (gender

typicality X school belonging) was entered into the model. This analysis determined that

both the standardized predictor variables accounted for 28.4% of the variance in self-

esteem (R^2=.284) and the interaction term accounted for only an additional 0.1%

(ΔR^2=.001) which is not a significant difference. Thus, school belonging was not found

to be a significant moderator of the relationship between gender typicality and self-

esteem (see Table 6).

Again, the examination of residuals suggests that the regression model appears to

meet the ordinary least squares (OLS) assumptions. In summary, the hypothesis that

classroom social support would be positively and significantly related to self-esteem was

not confirmed.

Table 6.
Regression Model for School Belonging Moderating the Relationship between Gender Typicality and Self-Esteem

Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black vs. non-Black)	.022	--	-.141
	Grade level		--	.035
2	Gender typicality	.284*	.262*	.482*
	School belonging			.087
3	Gender typicality X School belonging	.285*	.001	.034

*$p < .05$

Hypothesis 5: Classroom Social Support as a Moderator

The fifth hypothesis, which proposed that classroom social support would

significantly moderate the relationship between gender typicality and self-esteem, was

tested using a hierarchical regression analysis. In the first step, the covariates race and

grade were entered into the model. The second step involved entering both the

standardized predictor variable (gender typicality) and the standardized moderator

variable (classroom social support) into the model. Finally, the interaction term of the

predictor and the moderator (gender typicality X classroom social support) was entered

into the model in the third step. The test for moderation was not significant, as both the standardized predictor variables accounted for 28.2% of the variance in self-esteem (R^2=.282) and the interaction term accounted for only an additional 0.2% (ΔR^2=.002) which is not a significant difference (see Table 7).

By examining the residuals, it was determined that the regression model appears to meet the ordinary least squares (OLS) assumptions. Thus, Hypothesis 5, which proposed that classroom social support would be positively and significantly related to self-esteem, was not confirmed.

Table 7.
Regression Model for Classroom Social Support Moderating the Relationship between Gender Typicality and Self-Esteem

Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black vs. non-Black)	.022	--	-.141
	Grade level		--	.035
2	Gender typicality	.282*	.260*	.492*
	Classroom social support			.071
	Gender typicality X Classroom social support	.284*	.002	.044

*p < .05

Hypothesis 6: Gender as a Moderator

Knowing whether or not the relationship between gender typicality and self-esteem varies (in director or intensity) as a function of gender would greatly enhance understanding of the gender typicality construct. It was hypothesized that the relationship between gender typicality and self-esteem would be stronger for boys than for girls given the greater rigidity of the masculine gender roles (Archer & Lloyd, 2002). So, an analysis

of gender as a moderator of the relationship between gender typicality and self-esteem was conducted.

To test whether or not gender significantly moderated the relationship between gender typicality and self-esteem, another hierarchical regression analysis was conducted. Again, the covariates race and grade were entered first. Then, the standardized predictor variable (gender typicality) and the standardized moderator variable (gender) were entered into the model. Finally, the interaction term of the predictor and the moderator (gender typicality X gender) was entered into the model. The test for moderation was not significant, as both the standardized predictor variables accounted for 29.3% of the variance in self-esteem (R^2=.293) and the interaction term accounted for only an additional 0.5% (ΔR^2=.005). This is not a significant difference (see Table 8).

Table 8.
Regression Model for Gender Moderating the Relationship between Gender Typicality and Self-Esteem

Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black vs. non-Black)	.022	--	-.141
	Grade level		--	.035
2	Gender typicality	.293*	.227*	.530*
	Centered Gender			.128
3	Gender typicality X Centered Gender	.298*	.005	.289*

*p < .05

Full Regression Model

Gender typicality and school belonging were both found to be significantly predictive of self-esteem. As a final step in this data analysis, both of these significant predictors were entered into a simultaneous regression analysis to determine if they both account for unique variance in the self-esteem variable. The total amount of variance accounted for in the model is reported (Total R^2) as well as the unique variance explained by each variable (β).

First, the covariates race and grade were entered into the model. Then, both predictor variables that were found to be significant, gender typicality and school belonging, were entered into a simultaneous regression. In sum, 28.2% of the variance in self-esteem was collectively accounted for by the two predictor variables. However, in this model, only the standardized regression coefficients (β) for gender typicality remains significant. The standardized regression coefficient for gender typicality is .482, indicating that, when other variables are held constant, as gender typicality increases by ten percent, self-esteem increases by more than 4.8% percent.

Though school belonging significantly predicted self-esteem, as confirmed in the regression analysis for Hypothesis 2, it is no longer significant when entered in the same model as gender typicality. Thus, the variance in the self-esteem variable associated with school belonging is shared with gender typicality. In other words, school belonging does not predict unique variance in self-esteem, above and beyond what is predicted by gender typicality (see Table 9).

Table 9.
Full Regression Model

Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black vs. non-Black)	.022	--	-.141
	Grade level		--	.035
2	Gender typicality	.284*	.262*	.482*
	School belonging			.087

p < .05

That the power of school belonging to predict self-esteem is reduced to non-significance upon the introduction of gender typicality into the model suggests that gender typicality could be mediating the relationship between school belonging and self-esteem. Thus, a formal test for mediation was conducted.

Mediation Analysis

Unlike moderators, which address "when" and "for whom" a predictor is more strongly related to an outcome variable, mediators determine "how" or "why" one variable predicts or causes the relationship between a predictor and an outcome variable (Baron & Kenny, 1986). According to the process laid out by Baron and Kenny (1986) and reiterated by Frazier, Tix and Barron (2004), establishing mediation involves four steps. First, it must be established that a predictor variable is significantly related to an outcome variable. In the current analysis, the predictor variable is school belonging and the outcome variable is self-esteem. This relationship was tested in the second hypothesis of the current study and found to be significant, with school belonging accounting for 7.5% of the variance in self-esteem.

Second, the predictor variable must significantly predict the mediator variable. In the current analysis, this would mean that school belonging would significantly predict gender typicality. The current study has not formally assessed this relationship through a regression analysis, though we can gather from out correlation matrix that there is a .305 correlation between the two variables, which is significant at the $p < .05$ level. Nonetheless, this relationship was not formally assessed within a regression model that controls for grade and race.

To formally assess this relationship, a hierarchical regression technique was used. First, the covariates grade level and race were entered into the regression model. Then, scores on the predictor variable school belonging were regressed upon scores on the mediator variable, self-esteem. After controlling for grade level and race (i.e., Black vs. non-Black), participants' levels of school belonging predicted 10.0% of the variance in gender typicality, which was statistically significant at the $p < .05$ level ($R^2 = .100$, $p = .002$). An examination of the standardized beta coefficient produced in this analysis ($\beta = .298$) indicates that the relationship between school belonging and gender typicality is positive (see Table 10). This analysis demonstrates that second pre-requisite for mediation analysis has been met.

Table 10.
Regression Model for School Belonging Predicting Gender Typicality

Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black vs. non-Black)		--	-.141
		.022		
	Grade level		--	.035
2	School Belonging	.100*	.088*	.298*

*$p < .05$

In the third step of mediation analysis, the mediator variable must significantly predict the outcome variable. In this study, this step involves the relationship between gender typicality and self-esteem, which was established in this study's first hypothesis.

In the fourth and final step of mediation analysis, the mediating variable is added to the model in which scores on the outcome variable are regressed on the predictor variable. When the mediator variable is added to the model, the strength of the relation between the predictor and the outcome is significantly reduced. When a complete mediator is entered into the model, the strength of the relationship between the predictor and criterion variables will not be significantly different than zero. In this case, the final step would demonstrate that the relationship between gender typicality and self-esteem would be significantly reduced when gender typicality is entered into the model.

To test this final step in the mediation analysis, a hierarchical regression was performed (see Table 11). First, the covariates race and grade were entered into the model. Then, the standardized predictor variable (school belonging) was entered into the model, accounting for 7.5% of the variance in the outcome variable (R^2=.075) a

significant amount at the p < .05 level (p = .019). The standardized beta coefficient

produced by this part of the analysis was .231, indicating that there is a positive and

significant association between school belonging and self-esteem. Finally, the

standardized mediator variable (gender typicality) was entered into the model. In this

step, gender typicality accounted for 27.7% of the variance in the outcome variable

(R^2=.284) a significant amount at the p < .05 level. The standardized beta coefficient

produced by this part of the analysis was .482, indicating that there is a positive and

significant association between gender typicality and self-esteem. Once gender typicality

was entered into the model, the standardized beta coefficient indicating the strength of the

relationship between school belonging and self-esteem was .087, which was no longer

significant at the p < .05 level. Thus, the test for mediation was significant. In other

words, with gender typicality in the model, school belonging was no longer significantly

predictive of self-esteem (see Figure 6). The implications of this finding will be discussed

thoroughly in Chapter 5.

Table 11.
Regression Models for Gender Typicality Mediating the Relationship between School Belonging and Self-Esteem

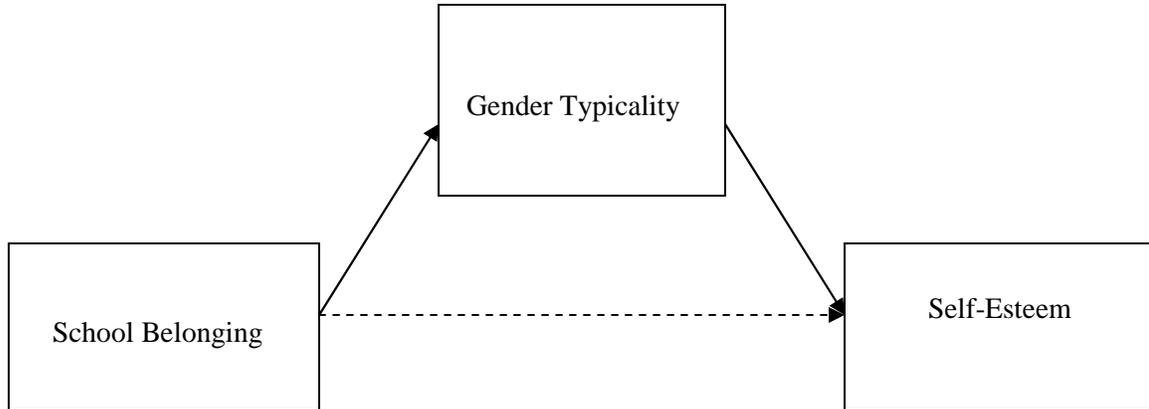| Block Entered	Variable	R^2	ΔR^2	β
1	Race (Black vs. non-Black)	.022	--	-.141
	Grade level		--	.035
2	Gender typicality	.284*	.262*	.482*
	School belonging			.087

p<.05

Figure 6. Illustration of Mediation Analysis

Summary of Results

In summary, gender typicality and school belonging were independently significantly predictive of self-esteem among this sample of 104 3rd and 5th graders from four elementary schools in the city of Boston. Classroom social support, however, was not found to be significantly predictive of self-esteem at the alpha level proposed for this analysis ($p < .05$). However, the relationship between classroom social support and self-esteem neared significance at this level. It was found that neither of the proposed moderators in this study, school belonging and classroom social support, significantly moderated the relationship between gender typicality and self-esteem. However, it was found that gender typicality significantly mediates the relationship between school belonging and self-esteem. These results and the implications of this study will be discussed further in Chapter 5.

CHAPTER V: Discussion

Prominent conceptualizations of gender identity assert that it is not a static aspect of identity (Bem, 1981; Kagan, 1964; West & Zimmerman, 1991). Rather, it evolves throughout the ongoing processes of transactional relationships between an individual and multiple levels of context, all the while contributing in innumerable ways to one's overarching sense of identity (Ruble, Martin & Berenbaum, 2006). For example, the extent to which individuals' expressions of gender identity aligns with divergent social expectations for the behavior of men and women impacts various aspects of mental health, including self-perceptions and evaluations. Egan and Perry's (2001) recent contributions to the gender literature demonstrates the impact of gender on psychosocial well-being, including self-evaluations. According to Egan and Perry (2001), gender identity consists of five dimensions, including group membership, gender typicality, gender contentedness, felt pressure to conform, and intergroup bias. Gender typicality, defined as the degree to which an individual feels similar to others in his or her gender category, relates strongly with several developmental outcomes, including global self-worth, acceptance from male peers and acceptance from female peers (Carver et al., 2003; Egan & Perry, 2001; Yunger et al., 2004).

The purpose of this study is to broaden the understanding of the relationship between gender typicality and global self-worth in middle childhood. This study attempts to understand when and for whom gender typicality has a significant and direct relationship with self-esteem, proposing that the direction and intensity of this relationship might depend on the presence or absence of certain protective factors. More specifically, this study proposed that school belonging and classroom social support

would moderate the relationship between gender typicality and self-esteem. Thus, this study will determine the extent to which this relationship depends on the strength of the connection children feel to their school and/or their peers. If the relationship between gender typicality and self-esteem is, in fact, moderated by school belonging and/or classroom social support, then it is clear that these variables can serve as protective factors for children who appraise themselves as gender atypical.

This chapter begins with a review and discussion of each of the findings of this study. First, the finding of a more robust relationship between gender typicality and self-esteem than had been previously recorded is discussed at length with careful consideration of research design and demographic factors that may have contributed to the strength of this relationship in the current study. Further, findings regarding the relationship between the outcome variable self-esteem and school belonging and classroom social support will be discussed. Then, the non-significance of the hypotheses that school belonging and classroom social support would moderate the relationship between gender typicality and self-esteem will be discussed. Further, the non-significance of gender as a moderator will be reviewed. Finally, the review of findings portion of this chapter will conclude with a discussion of the unexpected finding that gender typicality mediates the relationship between school belonging.

After the review and discussion of each finding, theoretical implications of this study are considered and discussed. Finally, the strengths and limitations of this study are discussed with a particular focus on directions for future studies that could build upon the current results and findings.

Review and Discussion of Findings

Gender Typicality and Self-Esteem

The foundation of this study rests on the relationship between gender typicality and self-esteem, established in previous research (Carver et al., 2003; Egan & Perry, 2001; Yunger et al., 2004). The first hypothesis in this study sought to corroborate previous findings of a significant relationship between gender typicality and self-esteem. In addition, establishing this relationship within the current sample was necessary before testing the extent to which school belonging and classroom social support moderated this relationship. In accordance with prior research, the relationship between gender typicality and self-esteem was found to be significant after partialling out the variance associated with race and grade. Gender typicality accounted for 27.7% of the variance in the self-esteem variable. In Egan and Perry's (2001) initial study of this relationship, gender typicality had accounted for 23% of the variance in the global self-worth variable. Though Yunger, Carver & Perry (2004) were mainly concerned with testing longitudinal relationships, the concurrent correlation coefficient during the first year of assessing the relationship between gender typicality and self-esteem was .23. When assessed from the perspective of regression for the sake of comparison with the current study, gender typicality would have accounted for 5.29% of the variance in global self-worth within the sample used by Yunger, Carver & Perry (2004). Therefore, the relationship between these two variables is stronger within the current sample than in both the Egan and Perry (2001) sample and the Yunger, Carver & Perry (2004) sample.

Possible explanations for why the magnitude of the relationship surpassed previously observed relationships include: (a) use of race as a covariate in the current research design and (b) the racial makeup of the current sample.

Use of Race as a Covariate. The use of race as a covariate may contribute to the relative strength of the relationship between gender typicality and self-esteem observed in the current study. The two previous studies (Egan & Perry, 2001; Yunger et al., 2004) with comparatively weaker relationships controlled for age and sex in their analyses. In the current study, grade and race were used as covariates. Controlling for grade versus age has likely resulted in the same or very similar effect because of the natural correlation between grade and age. However, given the strong relationship between race and self-esteem (Twenge & Crocker, 2002), as well as the significant racial diversity within the current sample, it is likely that partialling out the variance associated with a Black racial identity had a considerable impact on the current findings.

Several decades' worth of research has established that Blacks report significantly higher self-esteem than Whites (Gray & Hafdahl, 2000; Porter & Washington, 1979; Twenge & Crocker, 2002). Though the self-esteem discrepancy between Blacks and White has received the most focus in the literature, evidence suggests that Blacks also hold an advantage in self-esteem over other racial groups as well, including Latinos/Latinas, Asians and American Indians (Twenge & Crocker, 2002). Thus, in the present study, the Black advantage in self-esteem was controlled for by partialling out the variance associated with identifying as Black versus non-Black.

Twenge and Crocker (2002) conducted a meta-analysis of studies exploring racial differences in self-esteem. They culled the results of 354 studies that focused on

examining the relationship between race and self-esteem, stretching back over 50 years. A weighted effect size of .19 was found to quantify the Black advantage in self-esteem, suggesting a robust difference. By comparing the research design and demography of various studies within this literature, it is possible to identify factors that contribute to the variations in the size of the Black self-esteem advantage. Several of these contributing factors are relevant to the current findings. Firstly, Twenge and Crocker's (2002) meta-analysis included only studies that assessed self-esteem using a global measure and found a significantly larger effect size than another meta-analysis, conducted by Gray-Little and Hafdahl (2000), that included studies that assessed self-esteem using domain-specific measures. Domain-specific self-esteem measures assess children's judgments about their various levels of competency in different life arenas (i.e., academic self-worth, social self-worth), while global self-esteem measures (Bracken, 1996; Harter, 1982; 1985; 1990; 1993) assess children's sense of their general worth as people. The discrepancy in effect sizes calculated by these two meta-analyses suggests that the use of global measures of self-esteem may be associated with a larger advantage in self-esteem for Black populations. Thus, it is possible that self-worth in Black cultures is less associated with a sense of competence in specific domains than in other cultures. Twenge and Crocker (2002) point out that self-evaluations in specific domains are related to global self-esteem only in those who have staked their self-worth on achieving in that domain (Pelham, 1995; Pelham & Swann, 1989). As a result, domain-specific assessments of self-worth can be misleading when making conclusion about general self-esteem. This disconnect between domain-specific self-worth and global self-worth is perhaps particularly relevant in Black individuals, for whom self-esteem is thought to be at least

partially related to cultural factors such as positive racial identity and a cultural collectivism rather than specific competencies in life arenas (Oyserman, Coon, & Kemmelmeier, 2002; Carter, 1995).

Regardless of the cause for the larger advantage, the current study's use of a global measure of self-esteem suggests that the Black self-esteem advantage would be maximized within this sample. Thus, controlling for race was likely a critical aspect of the research design and could have had a strong impact on the results of the current study. Previous studies that assessed the relationship between gender typicality and self-esteem have not used race as a covariate. Partialling out the variance in self-esteem associated with race may have removed extraneous variance from the relationship between gender typicality and self-esteem in such a way that amplified the observed association within the current sample.

Similarly, larger discrepancies in self-esteem between Black and White populations have been found in low socioeconomic status (SES) groups than in middle and high SES groups (Twenge & Crocker, 2002). The current sample was drawn from schools with student bodies that are roughly 77% below the poverty line. The prevalence of poverty within the current sample increases the likelihood of a large Black advantage in self-esteem and reinforced the importance of the use of race as a covariate. This aspect of the research design likely paved the way for the strength of the relationship between gender typicality and self-esteem in the current sample to be found.

Finally, analyses of the Black advantage in self-esteem across time indicate that it has been growing (Twenge & Crocker, 2002). Therefore, controlling for race in the current study may have been more necessary than in earlier studies that explored the

relationship between gender typicality and self-esteem. In summary, it is likely that the use of race as a covariate removed extraneous variance from the relationship between gender typicality and self-esteem in such a way that amplified the magnitude of the association. That the strength of the relationship in this study is considerably stronger than in previous studies further requires an exploration into the mental health implications of gender typicality.

Racial Diversity within the Current Sample. While previous studies (e.g., Carver et al., 2003; Egan & Perry, 2001; Yunger et al., 2004) that established the link between gender typicality and psychosocial adjustment variables were conducted with overwhelmingly White populations, this study assessed this relationship within the context of a racially diverse sample. The current sample was comprised of 26.9% Black (e.g., African, African-American, Carribean) students, 26.0% Latino/Latina (e.g., Puerto Rican, Mexican, Central/South American) students, 22.1% White (e.g., non-Hispanic) participants and 20.2% Asian or Asian-American students. Students' self-perceptions of their own similarity to others within their gender group depend greatly on their own particular conception of normative attributes and behaviors for each gender group and the extent to which they have internalized such norms. In other words, the process of gender socialization contributes to the formation of a self-perception of gender typicality and most researchers contend that this process varies between racial and cultural groups (Blee & Tickamyer, 1995; Hill, 2002). Thus, it is likely that relationships among gender identity variables and psychosocial adjustment variables will vary across cultural groups.

Scholars have proposed that gender roles within the African-American community depart considerably from roles distinctions traditionally espoused in the

American cultural mainstream. From a historical perspective, slavery forced a reinvention of gender roles within this cultural group as it deprived African-American men of their role as breadwinners and protectors while compelling women to work outside of the home instead of focusing on domestic tasks (Giddings, 1984). Some argue that the discrepancy between Black and White gender roles stretches back further than slavery to the female-centric kin networks that define African social and cultural heritage (Caldwell, 1996). Despite the widely held view that African-Americans endorse gender equality, empirical research has not clearly supported this contention. For example, some researchers have found that African-American people have more conservative views on gender than Whites (Binion, 1990; Smith & Seltzer, 1992). Specifically, African American men have been found to be more inclined towards more conservative gender role attitudes than White men (Wilson, Tolson, Hinton & Kiernan, 1990). Further, research suggests that Black women have not achieved gender equality in the domestic arena (Hossain & Roopnarine, 1993). In support of the historical view of gender equality among African-Americans, it has been found that African Americans in general tend to hold more liberal gender role attitudes regardless of class, age or marital status (Cazenave, 1983). Further, Hill (2002) conducted a qualitative study focused on gender socialization across social class with African-American families and found that all parents expressed some level of support for gender equality regardless of the sex of the parent, the sex of the child or their social class position.

Conflicting results found in studies exploring African-American gender socialization and gender roles likely reflect diversity within the African-American community. Despite the inconsistent findings, it is clear that cultural identity impacts

gender role socialization in a meaningful way that leads to variation in the gender

socialization process (Blee & Tickamyer, 1995). This variation is relevant to this study

because of the racial diversity within the current sample. Specifically, African-American

participants comprised 26.9% of the current sample.

With respect to the Latino/a community, there is more agreement among studies

concluding that gender roles distinctions are fairly strictly defined in a way that typically

leads to gender inequality (Raffaelli & Ontai, 2004; Sandfort, Melendez & Diaz, 2007).

Although diversity within the Latino community should not be ignored, studies have

consistently found that many Latino/a parents socialize children differently based on their

sex. For example, Latino/a parents' approach to raising daughters is characterized by

traditional gender-related expectations and messages (e.g., Sandfort, Melendez & Diaz,

2007). Within Latino/a households, boys and girls have described differing expectations

for household chores, socialization of gender-typed behavior, and freedom to pursue

social activities or gain access to privileges (Raffaelli & Ontai, 2004). In short, these

practices result in a privileging of boys within the Latino/a family environment (Raffaelli

& Ontai, 2004). This cultural influence on gender socialization is pertinent to this study

because of the racial diversity within the current sample. Specifically, Latino/a students

comprised 26% of the current sample.

According to Corby, Hodges & Perry (2007), Black and Hispanic children

experience a greater pressure to conform to gender norms than White children. With

respect to this study, it can be argued that the unprecedented strength of the relationship

between gender typicality and self-esteem may be related to this greater degree of felt

pressure to conform to gender norms experienced by Black and Hispanic children

(Corby, Hodges & Perry, 2007). Black and Hispanic children, taken together, form the majority of the current sample. This greater pressure to conform to gender norms may reflect the tendency of people of color to self-generate pressure to adhere to group norms, including gender norms (Arndt, Greenberg, Schimel, Pyszczynski & Solomon, 2002). Further, it has been argued that Black and Hispanic children reported stronger pressure to conform to gender norms because their cultures are relatively collectivistic and pressures for group conformity are evidently stronger in collectivist as opposed to individualist cultures (Fiske, Kitayama, Markus & Nisbett, 1998). These attempts to explain differences in gender conforming pressure experienced by Blacks and Hispanics represent somewhat broad cultural assumptions and thus should be made with caution for several reasons. Firstly, there is considerable cultural diversity among those who identified as Black or Hispanic. Secondly, this study did not include a measure of cultural or racial variables (e.g., racial identity) that might have enabled conclusions to be drawn about the role of culture in the students' lives. Nonetheless, the greater felt pressure to conform to gender norms was found by Corby, Hodges & Perry (2007) in a rigorously designed study and is conceptually relevant to the current study. Thus, in this case, speculation is warranted.

Regardless of the cause of the greater pressure experienced by Black and Hispanic children (Corby, Hodges & Perry, 2007), it can be argued that as a result, a stronger link between gender typicality and psychosocial outcomes would be found within a Black and Hispanic population. This speculation rests on the assumption that as environmental expectations for gender conformity strengthen, children's self-perceptions of their alignment with these expectations would have a weightier impact on their overall sense

of worth. In fact, Egan and Perry (2001), in their introduction of their multidimensional conceptualization of gender identity, proposed that the relationship between gender typicality and self-esteem would be moderated by felt pressure to conform. Based on their underlying theory, they hypothesized that the relationship between gender typicality and self-esteem would vary as a function of the level of felt pressure to conform. However, Egan and Perry's (2001) original study with an overwhelmingly White, middle-class sample, did not confirm this hypothesis; felt pressure to conform did not moderate the relationship between gender typicality and self-esteem. In other words, the relationship between gender typicality and self-esteem did not vary in intensity or direction as a function of the degree of felt pressure to conform to gender norms (Egan & Perry, 2001). Given that process of gender socialization varies across cultures, a reinvestigation of the interplay between gender typicality, felt pressure to conform and self-esteem within a racially diverse sample was in order.

Corby and colleagues (2007) conducted such a reinvestigation, exploring the relationship between the five dimensions of gender identity, as conceptualized by Egan and Perry (2001), and various psychosocial adjustment variables, including self-esteem, among a racially diverse, low-income sample of 5th graders. Their sample of 863 children included 260 Black children and 167 Hispanic children. Despite the significant finding of higher pressure to conform among Black and Hispanic children, the relationships between gender typicality and self-esteem were non-significant or significantly weaker than the relationship between these variables among White children. Among Black boys, for example, the relationship between gender typicality and self-esteem was not statistically significant. Among Black girls, the relationship achieved significance at the

$p < .10$ level, which is often a sub-standard significance threshold. The evidence for

Hispanic boys indicated a strong relationship between gender typicality and self-esteem,

reaching significance at the more stringent $p < .05$ level. However, this relationship

among girls was weaker (Corby, Hodges & Perry, 2007). At this point, it is important to

recall that strong relationships have been found for both White girls and boys in several

studies (e.g., Egan & Perry, 2001; Yunger et al., 2004). Thus, evidence generally

suggests that relationships between gender typicality and self-esteem among Black and

Hispanic children are weaker than among White children (Corby, Hodges & Perry,

2007).

Despite this generally weaker link between gender typicality and self-esteem

previously found by Corby, Hodges & Perry (2007) among Black and Hispanic children,

the current study identified a stronger relationship between these variables within a

sample that included a majority of Black and Hispanic children. Therefore, the results of

the current study contradict the investigation of gender identity and adjustment conducted

by Colby, Hodges and Perry (2007).

Though speculative, there are several possible reasons for these divergent

findings. Initially, factors contributing to Corby and colleagues' (2007) finding of a

generally weaker relationship between gender typicality and self-esteem must be

considered. Firstly, it is possible that in certain contexts children's conceptualizations of

attributes that are important for persons within each gender group to possess might

conflict with the attributes that engender value for oneself. In other words, the qualities

and behaviors that determine a self-perception of gender typicality within a particular

cultural, socioeconomic or regional context may be different or oppositional to the

qualities and behaviors that contribute to a high estimate of personal self-worth. For example, masculine gender norms associated with a low-income, urban Black population include violence, dangerous risk-taking, and defiance of adults (Kazdin, 1997). Behaving in congruence with these norms may promote unhealthy adaptation and ultimately erode a general sense of value for one's self as a person. Furthermore, many Latina girls, for whom the connection between gender typicality and self-esteem was relatively weak, have experienced the privileging of boys within their family environment (Raffaelli & Ontai, 2004). This brand of differential treatment for Latina girls may contribute to a self-expectation of subservience to males and feelings of helplessness and self-deprecation. Consequently, Latina girls may create standards for their own gender typicality that contradict determinants of their overall self-worth. These possibilities might account, at least partially, for the diluted strength of the relationship between gender typicality and self-esteem among Black and Hispanic children observed by Corby and colleagues (2007).

The aforementioned factors that may potentially account for the comparatively weak relationship between gender typicality and self-esteem among Black and Hispanic individuals would likely have not have been relevant in the current study for a number of reasons. Firstly, the masculine gender norms of violence, dangerous risk-taking, and defiance of adults may not have been as salient with the current sample because the mean age was younger and because of certain defining characteristics of the school environments. Corby and colleagues (2007) assessed a sample comprised entirely of 5th graders. The current sample included both 3rd and 5th graders; more 3rd graders than 5th graders received parental consent and participated. Social pressures towards maladaptive

behaviors for boys (e.g., violence) are likely to be less significant in 3rd grade boys than in 5th grade boys, who are approaching adolescence. Adolescence is a time of physical and emotional changes. These changes often generate considerable stress, feelings of rejection and anger at perceived or real failure (U.S. Department of Health and Human Services, 2000). Young people may be attracted to oppositional behavior during this developmental stage for several reasons. For example, adolescents may act defiantly or even violently as a way of asserting their independence of the adult world and its rules, as a way of gaining the attention and respect of peers, as a way of compensating for limited personal competencies, or as a response to restricted opportunities for success at school or in the community (Broidy, Nagin, Tremblay, Bates, Brame, Dodge et al., 2003; U.S. Department of Health and Human Services, 2000).

Furthermore, several characteristics of the school contexts that housed the current sample may shield the students from the particularly maladaptive social pressure that could contribute to a weaker relationship between gender typicality and self-esteem. Firstly, each of the schools involved in this study is a member of a school-community-university partnership that strives to ameliorate barriers to learning and strengthen positive development for all students. This program has established a coordinated, comprehensive and systemic approach to the provision of non-academic supports for learning (e.g., tutoring) and pro-social development (e.g., social competence training). A critical element of social competence training is creating a positive social environment that fosters responsible citizenship, good behavior and a sense of community among students. By integrating social competence into the academic curriculum and working to a positive social environment, this program works actively to defeat social messages that

encourage anti-social behaviors. In addition, one of the schools involved in the study is not only a member of this partnership, but also a Catholic school. In a religiously-affiliated institution, morality and values are more explicitly a central aspect of the education (Walsh & Goldschmidt, 2005). Given that promoting pro-social attitudes and behavior is an integral part of the mission of the school, it is perhaps less likely that Catholic school students' behaviors would conform to anti-social pressures.

In summary, despite the similarity between the racial make-up of the samples, results of the current study contradicted those found by Corby and colleagues (2007). The current study identified a stronger relationship between gender typicality and self-esteem than Perry and Egan's (2001) original study results, while the relationship found by Corby and colleagues (2007) was weaker. Though speculative, it is possible that within the sample of low-income, urban Black and Hispanic students, a sense of gender typicality occurs partially at the cost of personal self-worth. If so, then it is also reasonable to expect that this phenomenon would have been counteracted in the current sample, because of pro-social contextual factors.

School Belonging and Self-Esteem

The second hypothesis in this study predicted that school belonging would be significantly and positively related to self-esteem. Previous studies have established the protective qualities of school belonging, having found a positive association between this construct with academic achievement, academic self-efficacy and academic motivation (Anderman, 2002; Goodenow & Grady, 2993; Murdock, Hale & Weber, 2001). Beyond the academic implications of school belonging, it has been found to be negatively related to general psychosocial risks, including delinquency, substance abuse, early sexual

activity, and school dropout (Anderman, 2002; Marchant et al, 2001). Though this

literature suggests that a child's level of school belonging is a harbinger for

developmental outcomes and thus an important indicator of psychosocial well-being, the

relationship between school belonging, as conceptualized and measured in this study, and

self-esteem has not been assessed prior to the current study. This hypothesis, proposing

that school belonging would predict self-esteem was confirmed. School belonging

accounted for 7.5% of the variance in the self-esteem variable.

School belonging, as defined by Goodenow (1992; 1993), refers to students'

sense of being accepted, valued, included and encouraged by others, including teachers

and peers, in the classroom or school context. This sense of belonging embodies "support

and respect for personal autonomy and for the student as an individual" (Goodenow,

1993, p.25). In this study, feelings of belonging or acceptance in the immediate context of

the classroom or school were significantly related to valuing oneself as a person.

However, the association between the sense of belonging in the immediate school context

and self-esteem was not as strong as the association between gender typicality and self-

esteem. That the relationship between gender typicality and self-esteem is statistically

stronger than the relationship between school belonging and self-esteem may suggest that

feeling compatible with one's gender group is a more powerful contributor to valuing

oneself as a person than the sense of identification within one's classroom or school.

Though speculative, it is possible that the relative predictive strength of gender

typicality occurs because gender socialization is ubiquitous, occurring in each of the

dynamic contexts within which children develop. Though school is one of the most

critical socialization contexts, gender socialization occurs across each of the many

dynamic contexts within which children develop (Martin, Ruble & Szkrybalo, 2002). In the childhood and middle childhood developmental period, perhaps the most prominent avenue for gender socialization is the family context, which was not accounted for in this study. Bronfenbrenner and Morris (2006) propose that everyday interactions between parents and children contain many layers of messages for children. In addition to the explicit content that is transmitted when parents talk to children, the structure and style of parents' speech convey implicit messages regarding gender and social expectations. Further, parents, across cultures, have demonstrated somewhat divergent patterns of interaction with boys and girls. In short, family dynamics, use of language, as well as differential behavior patterns of modeling by mothers and fathers, impact children's preferences and engagement in activities in a way that contributes to observed gender differences (Martin, Ruble & Szkrybalo, 2002).

Implications for the psychological health of children resulting from this family gender socialization have been empirically evidenced. For example, maternal supportiveness and warmth, typically received more by girls than boys, has been shown to foster social competence and psychological functioning in children and adolescents (Brody, 1999; Lytton and Romney, 1991). Thus, it would be expected that this pattern of maternal interactions would contribute to girls' noted higher levels of empathy, altruism and connectedness. However, experience of greater maternal supportiveness may also encourage greater dependency on the part of daughters, thus stemming their development of autonomy and its correlate, self-esteem. Brody (1999) demonstrated that short-term effects of differences in parental interactions include girls' greater sense of passivity and dependence and more negative emotional displays and externalizing behaviors.

Relatedly, the expression of emotions, typically encouraged more for girls than boys within familial contexts, is associated with social competence and self-esteem (Brody, 1999).

Gender role expectations and gender-related messages permeate all social environments and are perhaps communicated most strongly in the family context. Thus, finding that gender typicality, an essential element of gender identity, and a partial product of unyielding gender socialization, more strongly relates to self-esteem than school belonging stands to reason.

Classroom Social Support and Self-Esteem

The third hypothesis in this study predicted that classroom social support would be significantly and positively related to self-esteem. Previous studies have established the protective qualities of social support, which was defined and measured in this study as friendship quality within a specific context, the classroom. The established associations between specific processes and indicators of friendship quality and relationship outcomes, general affective outcomes and school adjustment outcomes indicates the potential of classroom social support to be a protective factor. However, the relationship between classroom social support and global self-worth had not been previously assessed and a significant relationship was not found in the current study.

This non-significance of this relationship lends new insight into the finding of a significant relationship between school belonging and self-esteem. There is some overlap in the definitions of school belonging and classroom social support. An element of school belonging is peer acceptance and social support within the school or classroom. The measure used to assess school belonging in this study includes such items as, "Other

students here like me the way I am," thus assessing the degree to which the student feels supported or accepted by fellow students. The non-significance of the relationship between classroom social support and self-esteem suggests that other aspects of the school belonging construct contributed more strongly to its significant relationship with self-esteem. For example, with items like, "People at this school are friendly to me," Goodenow's (1993) measure of school belonging assessed social support within the school context, but leaves the source of the support vague. Further, other items (e.g., "Most teachers at my school are interested in me.") on the school belonging scale assess students' relationships with their teachers more explicitly. Thus, Goodenow (1993) has conceptualized school belonging to include feelings of acceptance from teachers and other school figures beyond peers. Given the non-significance of the relationship between classmate social support and self-esteem, results from the current study suggest that support from teachers and other non-student school figures is a critical element of the relationship between school belonging and self-esteem.

The relationship between support from teachers within the school context and positive developmental outcomes is consistent with previous literature. A series of investigations into the characteristics and importance of student-teacher relationships have identified the impact of teacher-student relationships on children's social competence and positive behavior (Birch & Ladd, 1996; 1997; 1998). Students' whose relationships with their teachers are characterized by warmth and openness reported higher levels of peer and assertive social skills. Birch and Ladd (1997) further linked closeness, dependence and conflict in student-teacher relationships to children's academic performance, school affect and school involvement. Most of the research on

student-teacher relationships has focused their association with school-related outcomes (Birch & Ladd, 1996; 1997; 1998). The association between student-teacher relationships and self-esteem has thus far not been formally assessed. Thus, investigating the link between student-teacher relationships and global self-worth could be a fruitful future direction of the self-esteem literature. In summary, findings of the current study suggest that supportive student-teacher relationships contribute significantly to students' assessments of their overall self-worth.

Previous research on mentoring may help understand the current study's suggestion that students' positive relationships with teachers and other adults within their school may be linked with self-esteem. Items in the school belonging measure employed in this study tapped students' feeling of support and validation from other students, teachers and more generally, "people." It is likely that some students, when presented with these items, think of other adults within their school, including teacher aids, coaches, and after-school supervisors. In some cases, students may have a mentoring relationship with these adult figures in their schools. Mentoring has soundly been established as a protective factor, contributing to positive development in at-risk youth (DuBois, Holloway, Cooper & Valentine, 2002; Smith, 2002). A number of researchers have demonstrated that at-risk children who have mentors exhibit fewer problem behaviors, more positive attitudes towards school, greater academic efficacy, less marijuana use, less nonviolent delinquency, and lower levels of anxiety and depression (DuBois, Holloway, Cooper & Valentine, 2002; Smith, 2002). Mentors positively influence youth through their provision of support and motivation. In addition, their

presence in a young person's life can enhance interpersonal relatedness, and foster self-esteem (DuBois, Holloway, Cooper & Valentine, 2002).

In summary, the relationship between classroom social support and self-esteem approached significance but did not meet the a priori level of significance determined in this study. Therefore, the relationship between classroom social support, which focused on peer support, and self-esteem was not significant while the relationship between school belonging, which focused on support from teachers and other adults as well as peers, was significant. Thus, the current study suggests that support from teachers and other adults is a critical aspect of the relationship between school belonging and self-esteem.

School Belonging and Classroom Social Support as Non-Significant Moderators

The primary goal of this study was to further understand the relationship between gender typicality and self-esteem by attempting to identify moderators of this relationship. Specifically, this study proposed that school belonging and self-esteem would moderate this relationship. These hypotheses emerged from the literature that points to the protective capacity of both school belonging and self-esteem. In effect, it was proposed that students who self-perceive gender atypicality but report high levels of school belonging and/or classroom socials support would report higher levels of self-esteem than students who report gender typicality and low school belonging and/or classroom social support. In this case, the direction and/or intensity of the relationship between gender typicality and self-esteem would have depended on the level of the moderating variable. Thus, these hypotheses posed the critical questions of "when?" and

"for whom?" does gender typicality have a significant positive association with self-esteem (Frazier, Tix & Barron, 2004).

The moderating hypotheses of this study were not confirmed. Neither school belonging nor classroom social support was found to significantly moderate the relationship between gender typicality. Thus, it has been determined that the direction and the intensity of the relationship between gender typicality and self-esteem do not depend on extent to which a student feels that he or she belongs within his or her school environment or a sense of being supported by peers within his or her classroom. Thus, students' experiences of belonging within the school context and/or feeling supported by other students within the classroom were not relevant to the questions of "when?" and "for whom?" does gender typicality have a significant direct relationship with self-esteem. These non-significant findings suggest that gender typicality is positively related to self-esteem regardless of students' reported sense of school belonging or social support.

According to Frazier, Tix and Barron (2004), moderating analyses are typically conducted when the relationship between the predictor and the criterion variables is weak, as these analyses find subsections of populations for which the relationship may be stronger. In the case of this study, the relationship between the predictor variable (i.e., gender typicality) and proposed criterion variable (i.e., self-esteem) is strong. The previously observed relationship between gender typicality and self-esteem was strong and the relationship found within the current sample was even stronger. Though proposing moderators within the context of a strong relationship between predictor may be unconventional, this research design is supported by the theoretical underpinnings of

this study. The developmental-contextual model, particularly its focus on the importance of protective factors, conceptually mirrors the "buffering" effect assessed by moderating analyses (Lerner, 1995; Walsh, Galassi, Murphy, & Park-Taylor, 2002). Thus, while this moderating design was an appropriate method of examining the research question, the strength of the relationship between gender typicality and self-esteem may have diluted the possibility of finding significant moderation.

Gender Typicality as a Mediator

The original purpose of this study was to further explore the relationship between gender typicality and self-esteem by determining if this relationship by moderated by school belonging and/or classroom social support. In other words, it was hypothesized that these two variables could psychologically defend students against the negative costs of perceiving oneself as gender atypical. Results did not support the hypotheses of moderation. The configuration of findings in this study suggested that a more accurate explanation for the interplay of these variables exists. Particularly as a result of the strength of the relationship between gender typicality and self-esteem, the possibility that gender typicality mediates the weaker relationship between school belonging and self-esteem was proposed and assessed. Further, the test for mediation was significant. Gender typicality was found to be a full mediator. In other words, when gender typicality was entered into the model that included school belonging as the predictor variable and self-esteem as the outcome variable, the relationship between school belonging and self-esteem was rendered non-significant.

The purpose of conducting analyses of mediation is to determine why a relationship between a predictor and an outcome variable exists (Frazier, Tix & Barron,

2004). As a full mediator of the relationship between school belonging and self-esteem, gender typicality was determined to be a mechanism through which school belonging influences self-esteem (Frazier, Tix & Barron, 2004). Thus, it can be concluded that one of the reasons why students possessed of a strong sense of school belonging tend to value themselves highly as people is that they perceive themselves as similar to other boys or girls.

This finding is significant for several reasons. Firstly, it provides knowledge regarding the mechanisms through which school belonging influences self-esteem. Knowledge how self-esteem is influenced by other variables allows for the design of effective prevention and intervention initiatives aimed at improving students' psychosocial well-being. This study's implications for practice, including prevention interventions will be discussed later in Chapter 5.

Finally, the finding that gender typicality is a full mediator of the relationships between school belonging and self-esteem underscores the power and influence of gender typicality variable. Gender typicality is more than a simple contributor to self-esteem. Gender typicality is a mechanism through which other contributors, including school belonging, impact the pivotal self-esteem outcome variable. This finding suggests that gender typicality is an exceptionally powerful construct, perhaps particularly within the matrix of children's self-perceptions, which are very consequential for developmental outcomes. In sum, this finding suggests that the impact of gender typicality and perhaps other gender-related constructs on students' interaction with various contexts and evolving self-perceptions. This relationship should be explored more thoroughly in further research.

Theoretical Considerations

This study was founded on the principles of developmental-contextualism, which proposes that the course of an individual's development depends largely on contextual factors, which can be internal and external and are often categorized as biological, psychological and social. One of the foundational tenets of developmental-contextualism holds that risk and protective factors are embedded within these contextual factors, including biological, psychological and social systems, are risk and/or protective factors (Cicchetti & Sroufe, 2000; Walsh, Galassi, Murphy, & Park-Taylor, 2002). These risk and protective factors interact with one another as well as with the contexts of the individual to shape development. Further, risk and protective factors are thought to have an additive effect, such that maladaptive development typically results from an accumulation of risk factors coupled with a relative paucity of protective factors. In addition, healthy development occurs not in the absence of risk factors, but also when personal strengths and protective factors prevail over risk factors. Further, the effects of risk and protective factors are not universal, but rather their impacts vary as a function of individual, groups, and environmental differences (Rutter & Sroufe, 2000; Sameroff, 2000).

The current study has been conceptualized as an examination of the interplay among risk and protective factors that contribute to children's global sense of personal worth. Specific pathways that included gender typicality, school belonging, classroom social support and global self-esteem were hypothesized. For example, it was proposed that students who reported gender atypicality, an established risk factor, as well as high levels of school belonging or classroom social support, both established protective

factors, would report higher levels of self-esteem than would be expected in the absence of these protective factors. Conversely, it was proposed that students who reported gender typicality, an established protective factor, as well as low levels of school belonging or classroom social support, both established risk factors, would report lower levels of self-esteem than would be expected in the absence of these risk factors.

While these proposed pathways align with the risk and protective factors principle of developmental-contextual theory, developmental pathways are inevitably more complex, involving infinitely more variables than are addressed in this study. Further, the developmental-contextual perspective also proposes a transactional interaction of developmental factors and contexts. So, though this study conceptualizes the predictor variable and proposed moderator variables as contributing in some way to students' global self-worth, the these relationships are bidirectional. This study has contributed to establishing strong empirical support for the relationship between gender typicality and self-esteem. Though the correlational nature of this study and others exploring this relationship does not allow causal statements to be made regarding the direction of the relationship, it is often discussed as gender typicality's contribution to students' overall self-worth. In truth, one-way conceptualization of the relationship is likely a simplification, as students' self-worth is undoubtedly contributing to students' perception of their gender typicality in a pathway unexamined by this study. Given that gender typicality is a self-perception, it is likely that a student with a healthy sense of self-worth might adopt a view of gender roles that encompasses their own gender expression. It is most likely that, as many developmental theorists propose, this

relationship is transactional in nature, with both variables affecting one another continuously in a cyclical manner (Rutter & Sroufe, 2000).

Developmental-contextual theory also proposes that growth and development occur throughout the lifespan (Cicchetti & Sroufe, 2000). Undoubtedly, self-perceptions of gender typicality, self-worth and the interaction between them will fluctuate as a individual progresses through developmental stages and as a function of the evolving historical context. This study has not assessed change over time in study variables or the relationship between these variables over time. One previous study, conducted by Yunger and colleagues (2004), administered the gender typicality subscale twice with one year lapsed between administrations, finding a robust .56 correlation between results from one year to the next. Nonetheless, future research on gender typicality over time would be particularly illuminating, as it would further understandings of the extent to which the self-perception of gender typicality is dynamic. If so, information regarding patterns of change throughout development would be a useful tool in understanding gender typicality.

Yunger and colleagues (2004) also found that gender atypicality lead to decreases in self-esteem over time. However, they surveyed students from the 4th through the 8th grade, thus spanning the bridge from middle childhood into adolescence. At this point as children enter into adolescence, there is a well-documented decline in self-esteem (Eccles, Wigfield, Flanagan, Miller, Reuman, & Yee, 1989; Robins, Trzesniewski, Tracy, Gosling & Potter, 2002). Thus, the decline in self-esteem found by Yunger and colleagues (2004) is likely influenced by innumerable variables beyond gender typicality

and related to individual development that remain unexamined in their study or the current study.

In addition, research has suggested that school bonding, a construct that conceptually overlaps significantly with school belonging, tends to decrease over time (Anderman, 2003; McNeely, Nonnemaker, & Blum; Rumberger, 1995). Specifically, students experiencing transitions from elementary school to junior high and also from junior high to high school are particularly vulnerable to decreases in school bonging (Anderman, 2003; Eccles, et al., 1993). Thus, if the current study had been conducted with participants who were going through these transitions, it is likely that the results would have been different. Future studies may wish to include a lifespan perspective when assessing the relationships among and interaction between gender typicality, school belonging and self-esteem.

<center>Implications for Practice</center>

Prevention and Intervention

One of the ultimate goals of this study is to inform future initiatives aimed at increasing psychosocial well-being in elementary school students by decreasing the negative costs of gender atypicality. Further, given that relationship between gender typicality and self-esteem, a worthy goal of prevention initiatives would be to help children expand their notion of what is typical within gender groups. In turn, this expanded view of gender-typical interests and behaviors could perhaps eliminate one of many contributors to negative self-worth.

Schools would be the most obvious setting for such prevention and intervention initiatives. Schools are one of the most central socializing contexts of children's lives

(Brantlinger, Morton & Washburn, 1999). Children learn both formally and informally about topics both related to their academic curriculum and well beyond. School is often the center of students' social universe, where friendships are formed, tested and lost. Social norms and values, which are reflected in the school context (Brantlinger, Morton & Washburn, 1999), allow students to cultivate behaviors and attitudes that last until adulthood (Blum, McNeeley & Rinehart, 2002). The centrality of school in children's lives has resulted in the design and implementation of school prevention and intervention programs aimed at improving students' health and well-being. Further, the limitations of the recent education reform movement, with its near-exclusive focus on improving teaching and learning strategies, to close the achievement gap had led educators and policymakers to recognize the role of students' psychosocial well-being in their ability to learn. As a result, prevention and intervention strategies that focus on impacting students' psychological health are invaluable strategies for enabling children to achieve their academic potential in the classroom.

While intervention, such as individual or group counseling, with students who have developed negative outcomes such as low self-esteem is a worthy goal, it can be argued that prevention is an equally effective strategy and more just use of resources (Walsh, DePaul & Park-Taylor, 2009). The current results and previous studies (e.g., Carver et al., 2003; Egan & Perry, 2001; Yunger et al., 2004) strongly suggest that a sense of gender atypicality is related to lower self-esteem than would be expected by chance. Interrupting this status quo requires more than intervention, which merely reacts to the predictable manifestation of problems. Prilleltensky (1997) argues that implementing exclusively reactive intervention practices to address individual issues is

not only ineffective psychological practice, but also morally questionable in its failure to address problematic contextual conditions. Thus, creating awareness of gender roles and working to expand them in an effort to increase gender typicality and thereby, self-esteem, within a school context is an attainable and worthy preventive goal.

Action plans for addressing gender issues would vary by region and individual school. Further, the process and content of these plans could be the topic of a much lengthier discussion. However, action plans aimed at addressing gender issues in school should include activities that fall along a continuum: (a) whole school prevention, (b) targeted prevention and (c) intensive intervention. This multi-layered approach is embedded in a comprehensive system of student support that addresses all students and focuses on strengths as well as risks (ASCA, 2005; DePaul, Walsh & Dam, in press; Education Trust, 2003; Green & Keys, 2001; Walsh, Galassi, Murphy & Park-Taylor, 2009). General principles and goals of each of these levels of action will be briefly discussed.

Whole School Prevention

The most inclusive level of the comprehensive prevention continuum seeks to serve the whole school by creating a school climate that is safe, affirming and conducive to learning and healthy development for all students. A safe school climate for all students is evident in a physical environment that demonstrates respect and acceptance of widely defined gender roles, a social environment that works to counteract sexism by promoting dialogue about gender socialization, an affective environment that facilitates a

sense of belonging for all students and an academic environment that values diversity of

gender expression (DePaul, Walsh & Dam, in press; Michigan State University, 2004).

    Targeted Prevention. Targeted prevention is aimed at specific groups of students

who face established risks, including sexism, which consists of attitudes or behavior

based on traditional stereotypes of sexual roles. Targeted prevention is viewed as critical

to a socially just approach to education because it seeks to thwart chronic and predictable

risks. If students develop in both a social context and in schools that narrowly defined

gender roles devalue gender non-conformity, students who appraise themselves as gender

atypical face systemic risks that have far-reaching implications for their personal

development, including low self-esteem, as this study contends. Further, a critical

problem facing our nation's schools is heterosexist and homophobic harassment among

students. Staggering numbers (91.5%; Kosciw, 2004) of students who identify as lesbian,

gay, bisexual or transgender (LGBT) have reported hearing homophobic remarks

frequently or often. It is a misconception to think that this problem only affects the

approximately 5% of students who identify as lesbian, gay or bisexual. According to Reis

(1996), for every sexual minority student who reported harassment, four heterosexual

students reported harassment for being perceived as gay, lesbian or bisexual. Perceptions

of students' sexual orientation that lead to verbal and physical harassment are typically

based on gender expression. Thus, targeted prevention is necessary to buffer gender

atypical students from risks and increase opportunities for healthy personal and academic

development. For example, professional development with teachers and school staff, who

often witness such gender policing among students, can equip these first responders with

the tools necessary to confront harassing behaviors in a manner that raises awareness and creates dialogue.

Intensive Intervention. A comprehensive approach to addressing mental health in schools includes individual work with students who have already experienced negative outcomes. Intensive intervention could take the form of individual and group counseling with students who suffer the costs of gender atypicality and/or psychoeducation regarding gender issues with students, teachers and/or caregivers. This type of intervention requires school counselors in particular to have an appreciation of not only negative outcomes associated with gender atypical students but also with the benefits and strengths related to gender non-conformity (Mahalik et al., 2003).

<div align="center">Strengths and Limitations</div>

The present study sought to further the field by provided a more comprehensive understanding of the relationship between gender typicality and self-esteem, attempting to fill a gap in the literature focused on the relationship between gender-related constructs and psychosocial outcomes in middle childhood. The findings have provided some insight into this relationship while also suggesting new ideas and directions for future research. This provision of new information represents a strength of the current study. Further, the study's conceptual grounding in developmental-contextual theory, a perspective that accounts for multiple levels of interaction and transaction among the self and the environment represents another strength. Finally, the findings of the currents study will be relevant to prevention and intervention efforts that strive to improve psychosocial well-being of students in middle childhood.

In addition to the above strengths, the current study also has limitations. Most prominently, the study's research design is cross-sectional, only measuring the study variables at one point in time. Conclusions about the interaction of study variables across time cannot be made from the current data. Further, the data analysis strategy used in this study is correlational, which means that causality cannot be inferred from the findings. As mentioned above, there was significant multicollinearity among study variables, which significantly reduces the study's power to determine actual strength of the relationships among study variables.

Finally, the number of participants might be considered another limitation of this study. Although the number of participants was adequate to perform the analyses, a much larger sample size would have allowed for the detection of smaller relationships between variables in the sample as a whole. In addition, a much larger sample size would have also allowed for a more sophisticated and thorough exploration of whether and how the relationships among study variables differed for girls and boys.

Conclusion

Gender typicality, defined as a feeling of typicality and similarity to others within one's gender category, is a relatively new construct within the gender literature, having originated within Egan and Perry's (2001) multidimensional framework of gender identity. Several studies have demonstrated a robust relationship between gender typicality and psychosocial outcomes, including global self-worth. This study sought to further the field's understanding of the relationship between gender-related self-perceptions and self-esteem utilizing a developmental-contextual perspective. In particular, this study aimed to identify protective factors that buffered students who feel

atypical within their gender group, motivated by the commitment to preventing negative outcomes that are associated with gender atypicality.

Specifically, this study proposed that strong connections to the school context, including a sense of school belonging and social support from classmates, would moderate the relationship between gender typicality and self-esteem. Though these moderating hypotheses were not confirmed, several findings of the current study were notable. Firstly, within the current sample, the relationship between gender typicality and self-esteem was more robust than in previous studies. Further, gender typicality significantly mediated the relationship between school belonging and self-esteem. This finding suggests that gender typicality is a mechanism through which school belonging impacts self-esteem and further reinforces the salience of the gender typicality construct with regard to self-perceptions and psychosocial outcomes in children.

In sum, the current findings underscore the vital role of gender and gender typicality in children's lives. Given the strong relationship between gender typicality and psychosocial outcomes, it is imperative that families and schools work actively to expand children's notions of behaviors and attitudes that are typical for gender groups. Prevention initiatives and interventions in schools could contribute to decreasing the negative costs for students who perceive themselves as gender atypical. Such prevention and intervention initiatives have the potential to dilute the potency of social norms and/or empower children to confront social pressures in a way that not only contributes to enhanced perceptions of themselves but further enables them to achieve their loftiest aspirations and become their truest selves.

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Appendix A

Demographic Question Form.

In what month and year were you born?   Month _____ Year _____

What are you?   ☐ Boy   ☐ Girl

What grade are you in?   ☐ 3rd grade ☐ 5th grade

Which racial/ethnic group(s) best describes you? (You may select more than one choice):

☐ White, Caucasian (non-Hispanic)

☐ Asian, Asian-American

☐ Black (e.g., African, African-American, Caribbean)

☐ Hispanic or Latino (e.g. Puerto Rican, Mexican, Central/South American)

☐ Native-American

☐ Other (please specify): _____

☐ I don't know.

Appendix B

Gender Typicality Scale (Girl Version)

1.

Some girls don't feel
they're just like other
girls their age.

BUT

Other girls do feel
they're just like other
girls their age.

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

2.

Some girls don't feel
they fit in with other
girls.

BUT

Other girls do feel
they do fit in with
other girls.

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

3.

Some girls think they are a good example of being a girl.

BUT

Other girls do not think they are a good example of being a girl.

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

4.

Some girls think they are a good example of being a girl.

BUT

Other girls do not think they are a good example of being a girl.

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

5.

Some girls feel that the kinds of things they are good at are similar to what most girls are good at.

BUT

Other girls don't feel that the kinds of things they are good at are similar to what most girls are good at.

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

6.

| Some girls don't feel that their personality is similar to most girls' personalities. | BUT | Other girls do feel that their personality is similar to most girls' personalities. |

| Very true of me | Sort of true of me | | Very true of me | Sort of true of me |
| ☐ | ☐ | | ☐ | ☐ |

Appendix C

Global Self-Worth Scale

1.

| Some kids are often unhappy with themselves. | BUT | Other kids are pretty pleased with themselves. |

| Very true of me | Sort of true of me | | Very true of me | Sort of true of me |
| ☐ | ☐ | | ☐ | ☐ |

2.

| Some kids don't like the way they are leading their life. | BUT | Other kids do like the way they are leading their life. |

| Very true of me | Sort of true of me | | Very true of me | Sort of true of me |
| ☐ | ☐ | | ☐ | ☐ |

3.

Some kids are usually happy with themselves as a person.

BUT

Other kids are often not happy with themselves.

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

4.

Some kids like the kind of person they are.

BUT

Other kids often wish they were someone else.

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

5.

Some kids are very happy being the way they are.

BUT

Other kids wish they were different.

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

6.

| Some kids are not happy with the way they do a lot of things. | BUT | Other kids think the way they do things is fine. |

Very true of me	Sort of true of me		Very true of me	Sort of true of me
☐	☐		☐	☐

Appendix D

Psychological Sense of School Membership Scale

1.   I feel like a real part of my school.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

2.   Most teachers at my school are interested in me.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

3.   Sometimes I feel as if I don't belong here.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

4.   People at this school are friendly to me.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

5.   I am treated with as much respect as other students.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

6.   I can really be myself at this school.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

7.   People here know I can do good work.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

8.   I wish I were in a different school.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

9.   I feel proud of belonging to my school.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

10.   Other students here like me the way I am.

Never   *Hardly Ever*   *Sometimes*   *Most of the time*   *Always*

Appendix E

Perceptions of Peer Social Support Scale

1. Are there kids in your class who tell you you're good at doing things?

Never   *Hardly Ever*   *Sometimes*   *Most of the Time*   *Always*

2. Are there kids in your class who make you feel better if you're having a bad day?

Never   *Hardly Ever*   *Sometimes*   *Most of the Time*   *Always*

3. Are there kids in your class who let you play with them?

Never   *Hardly Ever*   *Sometimes*   *Most of the Time*   *Always*

4. Are there kids in your class who explain the rules to a game if you don't understand them?

Never   *Hardly Ever*   *Sometimes*   *Most of the Time*   *Always*

5. Are there kids in your class who make you feel happy?

Never   *Hardly Ever*   *Sometimes*   *Most of the Time*   *Always*

6. Are there kids in your class who share things like stickers, toys, and games with you?

Never   Hardly Ever   Sometimes   Most of the Time   Always

7. Are there kids in your class who help you if you hurt yourself on the playground?

Never   Hardly Ever   Sometimes   Most of the Time   Always

8. Are there kids in your class who tell you you're their friend?

Never   Hardly Ever   Sometimes   Most of the Time   Always

9. Are there kids in your class who help you if kids are being mean to you?

Never   Hardly Ever   Sometimes   Most of the Time   Always

10. Are there kids in your class who ask you to play with them?

Never   Hardly Ever   Sometimes   Most of the Time   Always

Appendix F

Principal Permission Form to Conduct Research.

To: Principal

From: Jillian DePaul, Doctoral Candidate, Boston College.

Date: April, 2008

Re: PERMISSION TO CONDUCT RESEARCH STUDY

I am writing to request your approval to conduct a study with third and fifth grade students at your school. This study will explore the effects of how similar a child feels to other boys or girls. This study will involve the administration of a 12-item student self-report questionnaire. The data will be used for my dissertation.

All research activities will minimally intrude upon the administrative and instructional process. Students will be administered a measure during a class time that is convenient for the classroom teacher by myself and one other graduate student from Boston College.

In order to participate in the research component, parental permission will be obtained. This will be accomplished by sending letters home. Participation is voluntary and confidentiality will be maintained. All written information will be kept in locked file cabinets at Boston College. Information about individual students will not be shared. Students participating will be tracked by their BPS ID number so that student data will not be identifiable by name. Identifying information will be stored separately from the surveys.

Papers or presentations of the collected data will not identify individuals but rather will speak about the general population of the students represented in the study. The school's name will not be used in any materials published during or after the project's completion.

Attached to this request are the informed consent forms for parents and teachers for your records. The project will adhere to all ethical standards established for research with human subjects. Permission has been granted by the Boston Public Schools Office of Research, Assessment and Evaluation and a proposal has been submitted to the Boston College Institutional Review Board. Any data will not begin to be collected until, or unless, permission is granted from you.

If you have any questions about this study, please contact me (201-952-9031; depaulji@bc.edu) or the supervising professor of this study, Dr. Mary Walsh (617-552-8973 walshhur@bc.edu). If you have any questions about the rights of your students as participants in a research study, please contact the Boston College Office for Human Research Participation Protection (617-552-4778) or Maryellen Donahue at the BPS Office of Research, Assessment and Evaluation.

Thank you very much for your consideration of this request. If you agree to allow your teachers and third/ fifth grade students to participate in this study, please sign below.

I have read the above project description and agree to have students in this school participate in this study providing that their parents give their written consent.

_____**Date**_____
Principal Signature and School Name

Appendix G

Invitation to Teachers to Help Facilitate the Study

To: Classroom teacher

From: Jillian DePaul, Doctoral Candidate, Boston College

Date: May, 2008

RE: INVITATION TO FACILITATE RESEARCH STUDY

I am writing to request your help in facilitating a study with your class. Your principal has granted permission for this study to be conducted with your third or fifth grade students. This study will explore the effects of how similar a child feels to other boys or girls. This study will involve the administration of a 12-item student self-report questionnaire. The data will be used for my dissertation.

All research activities will minimally intrude upon the instructional process. Students will be administered this questionnaire, during a class time that is convenient for you, by myself and perhaps one other graduate student from Boston College. The process of data collection will not take more than 15 minutes of class time.

In order to conduct the study, I would need your help in distributing and collecting parental consent forms. A sample consent for is attached for your records. If you agree to help facilitate the consent process, your Health Coordinator will supply you with enough consent forms for all of your students. Your Health Coordinator will also come by at the end of each day after the consent forms have been sent home to collect all of the consent forms that have been returned by students. Also, I would ask you to remind students to return their consent forms and that they will be given a gel pen if they return their form, regardless of whether consent is granted or not.

The project will adhere to all ethical standards established for research with human subjects. Permission has been granted by the Boston Public Schools Office of Research, Assessment and Evaluation and a proposal has been submitted to the Boston College Institutional Review Board. Any data will not begin to be collected until, or unless, permission is granted from you.

If you have any questions about this study, please contact me (201-952-9031; depaulji@bc.edu) or the supervising professor of this study, Dr. Mary Walsh (617-552-8973 walshhur@bc.edu). If you have any questions about the rights of your students as participants in a research study, please contact the Boston College Office for Human Research Participation Protection (617-552-4778) or Maryellen Donahue at the BPS Office of Research, Assessment and Evaluation.

Thank you very much for your consideration of this request. If you agree to allow your teachers and third/ fifth grade students to participate in this study, please sign below.

I have read the above project description and agree to help facilitate the data collection process for this study within my classroom.

_____**Date**_____
Classroom Teacher

Appendix H

Parent/Guardian Consent Form

Date: May, 2008

RE: PARENTAL PERMISSION - PARTICIPATION IN A RESEARCH STUDY

Dear Parent/Guardian:

      This letter is to inform you of a research study being conducting at your school focusing on student social and learning behaviors at school. I am a doctoral student in the Lynch School of Education at Boston College, and this research will be used for my dissertation. My research is guided by Professor Mary Walsh also of Boston College. This study has been approved by the principal at this school. Your child is invited to participate in this research study because s/he is enrolled in the third or fifth grade. Your child's participation and your permission are completely voluntary. Your decision to allow or not allow your child to participate will not effect his/her grades, academic standing, or any services s/he might receive at school.

Purpose: By doing this study, I hope to learn about the effects of how similar a child to other boys and girls.

Procedures: This research will be conducted during the regular school day. If you give permission and your child agrees your child will be asked to complete surveys that ask questions about their social and learning behaviors. Answering these questions should take about 15 minutes.

Risks and Benefits: Rarely, students may find some of the questions upsetting. If this occurs, the student will be excused from the survey and will be encouraged to talk to with the school counselor. Students typically enjoy answering questions about their thoughts, feelings, and perspectives. I hope that this research will inform future prevention or intervention efforts aimed at supporting students.

Costs: There is no cost for your child to participate in this study.

Compensation: As an incentive for students to return their signed consent forms, indicating they are permitted to participate or not, students who return signed consent forms before data collection begins will be given a gel pen.

Withdrawal from the study: You may choose to withdraw your permission at any time up to one month after your child completes the surveys. If you do so, your child's data will be destroyed. Your decision to withdraw your participation will have no effect on your child's grades, academic standing, or any services s/he might receive at school.

Confidentiality: All results from the surveys will be identified with ID numbers so that no names will be on any of the data. This permissions slip and the code linking his/her

name with the number used on the surveys will be kept in a locked cabinet at Boston College. To ensure confidentiality, these documents will be shredded within three years after the results of the study are published. The surveys will be kept by the researcher for use in future research projects. The information from your child's surveys will be combined with information from other student's surveys. Therefore, when I write up this study for my dissertation or publication, I only refer to combined information and never the responses of individual children.

Although I will treat the information we receive as confidential, there are some circumstances in which I may have to show your child's information to other people. For example, if it appears that your child is a danger to him/herself or others I will alert the school counselor of the need for further screening. Although it happens rarely, I may be required to show information which identifies your child to people who need to ensure that I have done the research correctly, such as the Boston College Institutional Review Board that oversees this research.

Questions: If you have any questions about this study or this letter, please contact me (201-952-8031; depaulji.edu) or the supervisor of this study, Professor Walsh (617-552-8973 walshhur@bc.edu). If you have any questions about your child's rights as a participant in a research study, please contact the Boston College Office for Human Research Participation Protection (617-552-4778).

Please sign and return the last page of this letter indicating whether or not you would like your child to participate. All students who return a signed permission slip (regardless of whether or not they are permitted to participate) will be allowed to chose a gel pen and a piece of candy.

Thank you very much for your time interest in this study.

Sincerely,

Jillian DePaul
Doctoral Candidate
Lynch School of Education
Boston College

Please read the following and indicate whether or not you would like your child to participate:

<u>YES, I give my child permission to participate in this research study:</u>

- ✓ I have read and understand this Informed Consent Document. I understand the purpose of the research project and what my child will be asked to do. I have been given the opportunity to ask questions and they have been answered satisfactorily.
- ✓ I understand that I may withdraw my permission for my child's participation in this research study up to one month after s/he takes the surveys, and that my child can refuse to answer any survey question(s).
- ✓ I understand that the researchers will work to keep the information they receive confidential. My child's name will not be on the data collected. Instead a code number will be used on the surveys.
- ✓ I hereby give my informed and free consent for my child to participate in this study.

Signature:

_____   _____
Consent Signature of Parent/Caregiver   **Printed Name of Parent/Caregiver**

_____   _____
Printed Name of Child Participant   **Date**

- -

<u>NO, I do NOT give my child permission to participate in this research study:</u>

Signature:

_____   _____
Signature of Parent/ Guardian   **Printed Name of Parent/ Guardian**

_____   _____
Printed Name of Child   **Date**

Thank you for returning this form promptly to your child's teacher!

You may keep the information on the first page for your own personal record.

Appendix I

Administrator Script and Student Assent

We believe you can help us learn about what 3rd and 5th graders think about a lot of things. It is important to us to learn how children think about things so that we can teach grown-ups to help children in better ways.

I am going to read you a bunch of questions. But this is not a test. Your answers to these questions will not count towards your class grade. Also, there are no right answers to these questions. They are about you, your thoughts and feelings. So, only you will know the best answer. Please try your best to answer honestly. Remember that your answers will be kept private. I will take your name off the survey and replace it with a number. To protect your answers, they will be kept in a locked cabinet at Boston College.

Student Agreement

- ✓ I know that I can skip any questions that I do not want to answer at any time. I can stop at any time.

- ✓ I understand that my answers are not going to be told to anyone and that my name will not be used on the questionnaire to protect my privacy. I understand that all materials will be kept in a locked file cabinet at Boston College.

- ✓ If there is anything I do not understand with the questions, I will ask one of the adults in the room to help me.

_____

Student's name (print)

_____

Student's signature (use cursive)

_____

Date