

THE DEVELOPMENTAL COSTS OF HIGH SELF-ESTEEM

By

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A Dissertation Submitted to the Faculty of
The Charles E Schmidt College of Science
in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

Florida Atlantic University

Boca Raton, Florida

August 2007

ACKNOWLEDGEMENTS

I would like to thank all of the faculty, staff, and students who assisted me throughout my graduate training. Most specifically, I would like to thank my dissertation committee members Drs. David Bjorklund, Tom Monson, Brett Laursen, and Dan Morris for their time and counsel. I would also like to express my deepest gratitude to my previous advisor Dr. Louise Perry, my husband Subhash Nair, my mother Kalyani Menon, my sister Meenakshi Menon, and brother-in-law Vijai Krishnan, for being a constant source of encouragement and support. Last, but certainly not least, I would like to thank my advisor, Dr. David Perry. Only with his guidance and support have I been able to get this far. My only regret is that my father, Capt. Kolengat Govindankutty Menon, is not around to share this joy with me.

ABSTRACT

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Degree: Doctor of Philosophy
Year: 2007

Two potential developmental costs of high self-esteem were investigated. One was that high self-esteem leads children to act on antisocial cognitions (the disposition-activating hypothesis). The other was that high self-esteem leads children to rationalize antisocial conduct (the disposition-rationalizing hypothesis). Both hypotheses were explored in two longitudinal studies with preadolescents. In Study 1 ($N = 189$) the antisocial behavior was aggression; in Study 2 ($N = 407$) the antisocial behavior under focus was avoidance of the mother. There was little evidence for the disposition-activating hypothesis in either study but considerable support for the disposition-rationalizing hypothesis in both studies. Over time, aggressive children with high self-esteem increasingly valued the rewards that aggression offers and belittled their victims, and avoidant children with high self-esteem increasingly viewed their mother as harassing and uninvolved. Results therefore suggest that for antisocial children, high self-esteem carries costs, for both themselves and others.

To Achan and Amma

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The Developmental Costs of High Self-Esteem

While reading newspapers, reviewing professional association conference programs, or even watching TV sitcoms, we fairly quickly get the impression that a person's self-esteem is a major determinant of what a person accomplishes and of how fulfilled and rewarding a life he or she lives. Historically, few aspects of personality have received greater theoretical and empirical attention than self-esteem. Many theorists have emphasized the centrality of the self-concept as an object of self-awareness and as a determinant of behavior (e.g., Cooley, 1902; Epstein, 1973; Greenwald, 1980; Harter, 1983; James, 1890 etc.).

In the late 1970s, articles by Kuiper and Rogers (1979), Markus (1977), and others demonstrated that self-views had properties similar to schemas and beliefs—constructs that had been championed by cognitive psychologists. In so doing, these researchers legitimized self-concept as a viable scientific construct. The result was a steep increase in research on the self during the 1980s (Swann & Seyle, 2005). At about the same time, an independent wave of interest within the lay community thrust the construct of self-esteem into the national limelight. On the basis of relatively little evidence, the California Task Force to Promote Self-Esteem and Personal and Social Responsibility (1989) characterized self-esteem as a panacea whose cultivation would protect people from a host of ills, including welfare dependency, teenage pregnancy, dropping out of high school, etc. Many naïve people across the United States were smitten with the hope that in self-esteem they had found a modern-day Holy Grail.

Since then, scores of studies have examined the correlates and consequences of self-esteem (e.g., Baumeister, 1998; Baumeister, Campbell, Krueger, & Vohs, 2003; Harter, 1998; Leary & Baumeister, 2000). Many researchers share the opinion that high self-esteem is desirable and adaptive and can even be used as an indicator of good adjustment (e.g., Heilbrun, 1981; Kahle, Kulka, & Klingel, 1980; Taylor, 1989; Taylor & Brown, 1988; Whitley, 1983; Yunger, Carver, & Perry, 2004). It is commonly believed that the confident, assertive self-system of high self-esteem people is likely to promote adaptive outcomes for these individuals. Indeed, high self-esteem is associated with positive outcomes, such as school success, athletic competence, physical attractiveness, positive relationships with parents and peers, absence of eating disorders, absence of internalizing symptoms (e.g., anxiety, depression, victimization by peers), and low participation in risk behavior (Baumeister et al., 2003; Harter, 1998).

Several authors (Baumeister et al., 2003; Crocker & Park, 2004; Dawes, 1996; Marsh & Craven, 2006; Scheff & Fearon, 2004; Swann, 1996) have questioned the utility of self-esteem in predicting important social outcomes, however, asserting that the effect sizes linking self-esteem to important outcomes are small and inconsequential. Further, while high self-esteem has been associated with resilience and optimal functioning on the one hand, it has also sometimes been associated with self-aggrandizement, defensiveness, and aggression on the other (Baumeister, Smart, & Boden, 1996; Kernis, 2003).

The present longitudinal studies explore two previously unexamined ways that high self-esteem might harm children's development. The first is that high self-

esteem causes children to act on social cognitions (e.g., expectations, values, efficacy beliefs) that encourage antisocial conduct. A second possibility is that high self-esteem causes children to rationalize their antisocial conduct after the fact, thereby solidifying an antisocial value system. Confirmation of either possibility would require further amendment to a conceptualization of high self-esteem as an unmitigated blessing and suggest certain cautions to investigators planning interventions to boost children's self-esteem. The basis for these expectations is elaborated below, where a brief review of the benefits and costs of high self-esteem is presented that reveals the possibility of other developmental costs associated with high self-esteem.

Benefits of High Self-Esteem

A wide range of literature indicates that high self-esteem is an important contributor to health and well-being (DuBois & Flay, 2004). This evidence includes numerous investigations in which higher levels of self-esteem have predicted more positive outcomes at follow-up even after controlling for initial levels of outcomes and other potential confounds. Prospective studies conducted with children, adolescents, and young adults, for example, suggest that low self-esteem increases susceptibility to a wide range of problematic outcomes such as depression, eating disorders, teenage pregnancy, victimization, difficulty sustaining and forming close relationships, involvement in antisocial behavior, substance use, and suicide ideation and attempts (DuBois & Tevendale, 1999; Emler, 2001; Baumeister et al., 2003). Higher levels of self-esteem similarly have been found in other research to prospectively predict growth in socioemotional functioning among younger,

preschool-age children (Verschueren, Buyck, & Marcoen, 2001) and, at the other end of the developmental continuum, decreased likelihood of mortality among older adults (O'Connor & Vallerand, 1998). Several long-term longitudinal studies also have found that relatively high levels of self-esteem (or, alternatively, the relative absence of indications of low self-esteem) during childhood and adolescence predict more favorable psychological, social, and occupational outcomes during adulthood (DuBois & Tevendale, 1999).

Further, positive self-esteem is also strongly associated with happiness (Cheng & Furnham, 2004) and well-being, and is believed to account for the relationship between “normal” narcissism and good psychological health (Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). Persons with high self-esteem are believed to experience less negative affect than low self-esteem persons in response to negative events (Moreland & Sweeney, 1984) and are also less subject to depression (Hokanson, Rubert, Welker, Hollander, & Hedeem, 1989; Krol et al., 1998).

Another theme that emerges from this work is that people with high self-esteem are intolerant of threats to the self, and they vigorously strive to maintain or restore their high sense of self-worth when it is threatened. In one longitudinal investigation, Egan and Perry (1998) found that high self-esteem protected preadolescents from victimization by peers, presumably because high self-esteem children refused to submit to bullies' coercive overtures. Adults with high self-esteem stick up for themselves too, and in a number of ways, including speaking up and expressing their views, cultivating their most promising traits (as opposed to focusing on remedying their deficiencies), taking credit for successes and denying

blame for failures, reacting to setbacks by increasing their expectations for success, and persisting in the face of failure (Baumeister, 1998; Baumeister et al., 2003; Blaine & Crocker, 1993; LePine & Van Dyne, 1998).

Some intervention research also points toward the benefits of helping individuals to achieve a high level of self-esteem. In a recent meta-analysis of the effectiveness of esteem-enhancement programs for children and adolescents (Haney & Durlak, 1998), program participants were found to experience gains not only in self-esteem but also in socially desirable behavior, competent personality and emotional functioning, and academic achievement. It is notable that the programs that produced the largest effects on these outcomes were those in which participants experienced the greatest increases in self-esteem (Haney & Durlak, 1998).

Improvements in self-esteem also appear to contribute to the effectiveness of a range of other types of interventions, such as cognitive-behavioral therapy (Shirk, Burwell, & Harter, 2003), mentoring programs (Rhodes, 2002), and school reform initiatives (Cauce, Comer, & Schwartz, 1987). It is noteworthy that such interventions have the aim of not only strengthening self-esteem but also facilitating positive outcomes in a range of other areas (e.g., academic performance). High levels of self-esteem may be more likely to prove adaptive when support and guidance are available to help individuals achieve feelings of self-worth in ways that are desirable from the standpoint of their overall health and well-being (Harter, 1999).

Thus, the confident, assertive, ego-serving self-system of high self-esteem people is often likely to promote adaptive outcomes for these individuals. However, recent research also suggests that, at least for a subset of people with high self-

esteem, such a self-system may also lead to harmful outcomes, especially for the persons' interactions partners but also for the high self-esteem persons themselves.

Costs of High Self-Esteem

Recent research suggests that high self-esteem may be less beneficial than previously thought. Some theorists and researchers have suggested that self-enhancement via a positive self-view may be little more than a defense mechanism of denial or repression in a healthy guise (Eysenck, 1994; Shedler, Mayman, & Manis, 1993). A feeling of high self-esteem via self-enhancement has been characterized as reflecting defensive neuroticism that leads to self-deceptive suppression of negative information about the self (Myers & Brewin, 1996; Paulhus, 1998; Bonanno & Singer, 1990; Weinberger, 1990; Weinberger & Schwartz, 1990). The suppression or repression of negative information is believed to be taxing. This perspective is potentially consistent with work by Gross (Gross & Levenson, 1997), who found that explicit efforts to suppress negative feelings produced high levels of autonomic activity. Pennebaker and colleagues (Pennebaker, 1997; Pennebaker & Graybeal, 2001) have found that inhibiting negative thoughts and feelings has physiological costs that may enhance susceptibility to illness. Taken together, this evidence suggests that if self-enhancement reflects a defensive suppression of negative information, then there are likely to be biological costs, potentially in the form of compromised stress-regulatory systems.

Further, along with physiological costs associated with this 'phony self-esteem' or artificial self-enhancement, it has also been proposed that highly favorable self-appraisals are often at the root of acts of violence. Several investigators have

suggested that it is necessary to distinguish *secure* high self-esteem from *insecure* high self-esteem and have stressed that persons with high but insecure self-esteem are at risk for antisocial conduct (e.g., Baumeister, Smart, & Boden, 1996; Kernis, Grannemann, & Barclay, 1989). Individuals have been said to have insecure, or fragile, high self-esteem if their high self-appraisals appear to be inauthentic (at variance with other people's evaluations of them; Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999; Zakriski & Coie, 1996), narcissistic (reflect feelings of superiority, infallibility, and entitlement; Bushman & Baumeister, 1998), coupled with implicit (unconscious) low self-esteem (e.g., as indexed by the Implicit Attitude Test; Greenwald et al., 2002), unstable (showing short-term fluctuations; Kernis, 2003; Kernis et al., 1989), contingent (dependent on specific qualities, such as physical attractiveness or outperforming others; Crocker & Wolfe, 2001; Deci & Ryan, 1995), or coupled with the sense that others harbor ill will toward them (Salmivalli, Ojanen, Haanpaa, & Peets, 2005). Children (Salmivalli et al., 1999, 2005; Waschull & Kernis, 1996) and adults (Bushman & Baumeister, 1998; Kernis et al., 1989; Twenge & Campbell, 2003) who have high but insecure self-esteem are prone to anger, hostility, and aggression, especially in response to ego threats (e.g., challenges to their adequacy in a domain in which they stake their self-esteem). Presumably, persons with high but insecure self-esteem lash out at people who criticize or disrespect them as a way of avoiding painful downward revisions of their lofty self-concepts (Baumeister, 1998). Given the heterogeneity of high self-esteem people with respect to aggressive tendencies, it is perhaps unsurprising that, as a group, high self-esteem persons are not consistently more or less aggressive than low

self-esteem persons (though when a difference is found, high self-esteem people usually are less aggressive than low self-esteem people; e.g., Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Sprott & Doob, 2000).

The Present Study

A review of the literature thus clearly suggests that high self-esteem has a dark side, revealed in the violence of persons whose high self-esteem is insecure. However, there may exist other, previously unrecognized, developmental risks associated with having high self-esteem. The present research explores two such additional possibilities. The first is that high self-esteem causes children to act on social cognitions (e.g., expectations, values, efficacy beliefs) that encourage antisocial conduct. A second possibility is that high self-esteem causes children to rationalize or justify their antisocial conduct, thereby solidifying an antisocial value system. Each of these two possibilities is considered in turn.

Does high self-esteem encourage children to act on antisocial cognitions? The first hypothesis is that high self-esteem causes children to translate antisocial thought into antisocial behavior. The term “antisocial” is used to refer to behaviors that put a distance between the self and another, accompanied by negative attitude or affect towards the other. Antisocial conduct takes different forms, and different social-cognitive factors underlie each form. Aggression—the quintessential antisocial behavior—is spurred by a number of cognitive motivators, including a hostile attributional bias, aggressive goals, the belief that aggression is normative and expected, expectations of reward, expectations of victim suffering, and perceptions of self-efficacy (Bandura, 1986; Crick & Dodge, 1994; Dodge, 1986; Egan, Monson, &

Perry, 1998; Huesmann & Guerra, 1997; Slaby & Guerra, 1988; Weiss, Dodge, Bates, & Pettit, 1992). Another type of antisocial conduct is the active avoidance or dismissal of a relationship partner evidenced by persons with an insecure/avoidant attachment. Questions may be raised about the application of the word “antisocial” to avoidant behaviors. Other encompassing terms for aggression and avoidance such as “externalizing problems” were also considered as an alternative. However, the usage of the term “antisocial” here is consistent with dictionary definitions of the term.

Avoidant attachment has been studied mainly in infants’ relationships with their mother (Ainsworth, 1979) and in adults’ conceptions of their relationships with their parents (Crowell, Fraley, & Shaver, 1999) and with their romantic partners (Feeney, 1999). However, some preadolescents self-report an avoidant attachment to their mother, by denying affection toward her, failing to seek her when upset, avoiding her during exploration and reunion, and refusing to use her as a task-relevant resource (Finnegan, Hodges, & Perry, 1996). Such avoidance forecasts aggression toward peers (Hodges, Finnegan, & Perry, 1999). Presumably, the cognitions motivating avoidant attachment are perceptions of the mother as unloving, unavailable if needed, intrusive, disinterested, harsh, or rejecting (Ainsworth, 1979). Indeed, preadolescents who report an avoidant attachment do perceive their mothers in these ways (Kerns, Tomich, Aspelmeier, & Contreras, 2000; Yunger, Corby, & Perry, 2005).

It is predicted that children with high self-esteem would be more likely than low self-esteem children to act on any antisocial cognitions they happen to possess. In other words, the cognitions that encourage aggression (e.g., expectation of reward)

or avoidant attachment (e.g., perception of the mother as rejecting) should promote the behavior in question mainly for high self-esteem children. This *disposition-activating* function of high self-esteem is expected because high self-esteem persons, compared with low self-esteem people, place greater confidence and trust in the beliefs they hold, are actually more accurate in their perceptions of people and situations, possess greater self-concept clarity, are more confident of their strengths, act more assertively on their beliefs and values, select more efficacious strategies for pursuing goals, and are less likely to give up easily when thwarted (Baumgardner, 1990; Campbell, 1990; Baumeister, 1998; Campbell et al., 1996; Kernis, 2003; Murray, Rose, Bellavia, Holmes, & Kusche, 2002; Swann & Pelham, 2002; Tedeschi & Norman, 1985). These qualities should conspire to cause high self-esteem individuals to act on whatever antisocial cognitions they harbor.

Does high self-esteem cause children to justify their antisocial conduct? A second hypothesis, which is not incompatible with the first, is that high self-esteem causes children to rationalize antisocial behavior after performing it. That is, high self-esteem should lead aggressive children to develop cognitions that justify (and sustain) aggression, such as the conviction that aggression is rewarding; it should also lead avoidantly attached children to develop cognitions that justify (and sustain) avoidant behavior, especially perceptions of the mother as harassing and unloving.

This *disposition-rationalizing* hypothesis is based on several considerations. For example, the memory biases of high self-esteem individuals lead them to exaggerate and take credit for their successes and to minimize and deny responsibility for their failures (Blaine & Crocker, 1993; Campbell, Reeder, Sedikides, & Elliot,

2000; John & Robins, 1994). Festinger's (1957) cognitive dissonance reduction model can also help elaborate the basis of this hypothesis. According to Festinger, individuals are driven to reduce or eliminate negative affective states by means of an *a posteriori* rationalization of behavior via cognitive rationalization or trivialization. Cognitive rationalization consists of modifying one's attitude to agree with the performed action (i.e., attitude change: Festinger & Carlsmith, 1959). As Festinger (1957) and later Elliot and Devine (1994) argued, attitude change serves to alleviate psychological discomfort. However, not all authors interpret attitude change in the same way. For some (Bem, 1967), it results from an inference-making process; for others (Alexander & Knight, 1971; Joseph, Gaes, Tedeschi, & Cunningham, 1979; Tedeschi, Schlenker, & Bonoma, 1971), attitude change is nothing more than a pretense aimed at strengthening and protecting a positive identity in front of others. For self-consistency theorists (Aronson, 1969, 1972, 1992; Thibodeau & Aronson, 1992), attitude change allows people to maintain self-esteem by preserving two central elements of the self: good morals and competency. Aronson (1968) claimed that "...if dissonance exists it is because the individual's behavior is inconsistent with his self-concept" (p. 23). Individuals with low self-esteem are thought to feel less dissonance than individuals with high self-esteem because the dissonant act does not threaten their self-integrity (Aronson & Carlsmith, 1962; Aronson & Mettee, 1968). These rationalization and trivialization effects may underlie the disposition rationalization effects expected in the present study. For instance, antisocial children with high self-esteem may reason about the self in a way that yields antisocial values

(rationalization): “I am good and I push others around; therefore, pushing others around is good” (see, e.g., Rudman, 2004).

Finally, high self-esteem individuals tend to engage in self-enhancing strategies when threatened. One self-enhancement strategy particularly favored by persons with insecure high self-esteem is the derogation (trivialization) of an adversary (Baumeister et al., 1996; Kernis et al., 1989; Kernis & Sun, 1994; Morf & Rhodewalt, 1993). It is likely that the high self-esteem of antisocial children is insecure. As noted, many aggressive children with high self-esteem have unstable or unrealistically high self-appraisals (e.g., Salmivalli et al., 1999), and it has been suggested that avoidantly attached children who have high self-esteem are also fundamentally insecure, that is, are uncertain of their mother’s love or availability and are defensively propping up a wounded self by assuming a self-aggrandizing, compulsively self-reliant stance (Crittenden, 1995). Consistent with this view, children who perceive their parents as rejecting do have less secure self-esteem (Kernis, 2003; Kernis, Brown, & Brody, 2000; Ryan & Brown, 2003). If it is assumed that aggressive and avoidant children not only have insecure self-esteem but also encounter numerous interpersonal threats, then it is reasonable to assume that they will react to their adversaries (peer victims, mothers) by derogating them.

Thus, my view that high self-esteem worsens the development of children who hold antisocial cognitions (by causing them to carry out their injurious thoughts) or who engage in antisocial conduct (by reinforcing their antisocial worldviews) stands in contrast to a conception of high self-esteem as a panacea-like buffer against all things bad. A critic of this position might argue that children who have achieved

high self-esteem should feel the *least* need either to act on their antisocial cognitions or to rationalize their antisocial conduct, because their strong sense of self should provide a sense of security and well-being that obviates the need for hurting others or rationalizing hurtful conduct. However, the considerations that have been raised here (e.g., the harmful effects of insecure high self-esteem) suggest that such a position is no longer tenable. It seems more reasonable to think that high self-esteem, when combined with either antisocial behavior or antisocial cognitions, constitutes risk for, rather than protection against, developmental adversity.

The present research explores the possible risks of high self-esteem in two contexts—the peer group environment where the antisocial behavior being studied is aggression, and the parent-child context where avoidance of the mother is the antisocial behavior under study. In both of these studies I evaluate both the disposition-activating hypothesis and the disposition-rationalizing hypothesis. The first study is a reanalysis of data published by Egan et al. (1998) and tests the hypotheses with respect to aggression. The second study presents new data and tests the hypotheses with respect to avoidant attachment to the mother.

Study 1: Aggression Towards Peers

This short-term longitudinal study evaluates two hypotheses. The first is that high self-esteem transforms aggressive cognitions into aggressive action (the disposition-activating hypothesis). That is, Time-1 self-esteem should interact with Time-1 aggressive cognitions to predict change in aggressive behavior over time, with aggressive cognitions forecasting increased aggression mainly for children with high self-esteem. This hypothesis was tested for each of five aggression-encouraging cognitions associated with aggression: expectation for reward, expectation for victim suffering, value placed on reward, value placed on victim suffering, and self-efficacy for aggression. These cognitions have been shown to be associated with aggression in previous studies (Boldizar, Perry, & Perry, 1989; Egan, Monson, & Perry, 1998; Huesmann & Guerra, 1997).

The second hypothesis is that high self-esteem encourages aggressive children to rationalize their aggressive conduct, that is, to develop cognitions that justify aggression (the disposition-rationalizing hypothesis). This prediction is consistent with the view that aggressive persons with high self-esteem self-enhance by claiming victory, belittling and disparaging their victims, feeling superior, and anticipating future successes. Thus, Time-1 self-esteem should interact with Time-1 aggressive behavior to predict change in aggressive cognitions over time, with aggressive behavior portending increased aggressive cognitions mainly for children with high self-esteem.

Method

Participants. All the children in the third through seventh grades of a state university school were invited to participate. Of the 263 children in these grades, 189 (71%; 92 boys and 97 girls) received written parental consent to participate; the children also signed an assent form. The admissions procedures of the school are designed to ensure that the demographic composition of the student body reflects that of the population of the state of Florida as a whole (68% White, 18% African American, 13% Hispanic, and 1% Asian, with annual household income distributed as follows: 6%, \$0–\$17,499; 12%, \$17,500–\$32,499; 22%, \$32,500–\$52,499; and 60%, \$52,500 or more). Approximately equal numbers of children came from each grade. Children were tested in the fall and again in the spring of a school year. They averaged 10 years, 10 months of age in the fall (age range of 8 years 3 months to 13 years 8 months).

Procedure. The measures were administered to children in the fall (November) and again in the spring about 5 ½ months later (April–May). The measures were administered to children in a fixed order during a single session that lasted about 1 hr. Children were tested in groups of four to six. Items on the test instruments were read aloud to the children by a female researcher as they followed along and marked their responses.

Measures. At each testing, children's *aggression* was assessed with a three-item peer-nomination scale (e.g., "He/She makes fun of people."). For each item, children were asked to nominate as many classmates as they wished (except themselves) who were participating from their class. A child's score on aggression

was determined by calculating the percentage of classmates who checked the child's name on each item and then totaling these percentages across the items; thus, scores could range from 0 to 300 (fall and spring Cronbach alphas = .85 and .87). The actual scores ranged from 0 to 211.

At each testing, children also responded to a 40-item questionnaire assessing five aggression-encouraging cognitions (eight items each): *expectation of reward* (the belief that aggression yields tangible and status rewards), *expectation of victim suffering*, *value of reward* (the importance placed on tangible and status rewards), *value of victim suffering* (feeling that harming one's victims is desirable or not blameworthy), and *self-efficacy for aggression* (feeling capable of enacting aggression). Cronbach alphas for these measures, respectively, for the fall (spring) were .63 (.69); .60 (.70); .76 (.83); .85 (.83); and .87 (.90). Scale scores could range from 1 to 4, with 4 indicating greater endorsement of the social cognition.

Finally, Harter's (1985) six-item *global self-worth* scale was administered at each testing, but only Time-1 scores were used (fall Cronbach alpha = .73); scores could range from 1 to 4, with 4 indicating greater self-esteem. (See appendix for instruments).

Results

Results are presented in four sections. First, means and standard deviations of the measures are presented. Second, intercorrelations of the measures are presented. The last two sections report multiple regression analyses that address the disposition-activating and the disposition-rationalizing hypotheses. Age and sex differences in the measures (or in relations among them) are examined within each of the foregoing sets

of results. Therefore, age and sex differences are not devoted separate sections in the results but are incorporated into each of the four subsections of the results. No hypotheses were made regarding age or sex, and few age or sex differences were found. The few differences that were significant are highlighted in the following sections.

Means and standard deviations of the measures. Table 1 presents the means and standard deviations of the measures by child sex and child age (children in the third, fourth and fifth grades were combined to form a “younger” group, and children in the sixth and seventh grades formed an “older” group). Regressions were performed in which each measure was treated as the dependent variable with age and sex entered simultaneously on the first step. Table 2 shows several significant main effects of age and sex. Overall, boys reported higher aggression as well as antisocial cognitions, including expectation for rewards for aggression, value for those rewards, value for victim suffering as well as perceived self-efficacy for aggression at both Time 1 and Time 2, as compared with girls. Older children scored higher than younger children on peer reported aggression at both times as well as expectations of reward at Time 1. Younger children scored higher than older children on expectation for victim suffering at the first testing session. Thus, the results suggest that boys and older children were more likely to be aggressive as well as to harbor antisocial cognitions than were girls or younger children.

Intercorrelations of measures. Table 3 displays the associations among the measures with child sex and age controlled (because the means of some measures varied with child sex or age). Several features of these correlations are noteworthy.

First, aggression and, to a lesser degree, the five aggression-encouraging cognitions were moderately stable over the school year. Second, although there were some significant correlations among the cognitions at each time of testing, the associations were not consistent or strong, suggesting that it is worthwhile to retain the five cognitions as separate variables. Third, self-esteem was positively correlated with expectation of victim suffering at each time of testing.

The disposition-activating hypothesis: Does high self-esteem magnify the contribution of aggressive cognitions to aggressive behavior? In other words, does self-esteem at Time-1 moderate the association between Time-1 aggressive cognitions and changes in aggression from Time-1 to Time-2? This hypothesis was evaluated in five hierarchical regression analyses, one for each aggressive cognition. The dependent variable was always Time-2 aggression. In each analysis, child sex, child age, and Time-1 aggression were entered on the first step. On the second step, Time-1 self-esteem and a Time-1 cognition measure (e.g., expectation of reward) were entered. On the third step, the focal interaction of self-esteem and cognition was tested. Supplementary analyses were also conducted to see whether child age or sex might moderate a focal two-way interaction, that is, to see whether a three-way interaction of age x self-esteem x cognition or of sex x self-esteem x cognition was significant (with all relevant main effects and two-way interactions in the model). Thus, in these supplementary analyses, either child sex or age (depending on the specific focus) and the Time-1 aggression were entered on the first step; Time-1 self-esteem and Time-1 cognition were entered on the second step; the interaction of self-esteem and cognition was tested on the third step; the supplementary interactions of

self-esteem by age/sex, and cognition by age/sex were entered on the fourth step; the three way interaction of self-esteem by cognition and age/sex was entered on the fifth step.

Table 4 (a-e) displays the results obtained on these hierarchical regression analyses. In no analysis was the focal two-way interaction significant. Furthermore, in no supplementary analysis was a three-way interaction significant. Thus, Study 1 failed to yield any support for the disposition-activating hypothesis.

The disposition-rationalizing hypothesis: Does high self-esteem magnify the contribution of aggressive behavior to aggressive cognition? In other words, does self-esteem at Time-1 moderate the association between Time-1 aggression and changes in aggressive cognitions from Time-1 to Time-2? This hypothesis was evaluated in five regression analyses, with the Time-2 level of each cognition measure serving as the dependent variable. In each analysis, child sex, child age, and the Time-1 cognition variable were entered on the first step; Time-1 self-esteem and Time-1 aggression were entered on the second step; and the focal interaction of self-esteem and aggression was tested on the third step. Supplementary analyses tested whether child sex or age moderated any focal two-way interaction. In these supplementary analyses, either child sex or age (depending on the specific focus) and the Time-1 cognition variable were entered on the first step; Time-1 self-esteem and Time-1 aggression were entered on the second step; the interaction of self-esteem and aggression was tested on the third step; the supplementary interactions of self-esteem by age/sex and aggression by age/sex were entered on the fourth step; the three way interaction of self-esteem by aggression and age/sex was entered on the fifth step. In

four analyses, the focal two-way interaction was significant, or nearly so, and in no supplementary analysis was the three-way interaction significant (i.e., no significant two-way interaction was moderated by age or sex). The interaction was significant (or nearly so) for expectation for reward ($F = 8.45, p < .004$), value of reward ($F = 5.69, p < .02$), value of victim suffering ($F = 3.51, p < .06$), and self-efficacy for aggression ($F = 4.37, p < .04$). (See Tables 5a-e).

In each case, the interaction conformed to the predicted pattern: high self-esteem exacerbated the contribution of aggression to the aggressive cognition. The nature of each significant interaction was examined using the procedure recommended by Aiken and West (1991), which estimates the relation of a predictor (e.g., Time-1 aggression) to a criterion (e.g., a Time-2 cognition) at each of three levels (-1, 0, and +1 *SD*) of a moderator (e.g., Time-1 self-esteem); relations are estimated in the form of standardized beta coefficients. Table 6 displays the results of these follow-up analyses. Notice that the impact of Time-1 aggression on each cognition outcome becomes increasingly positive as children's self-esteem moves from low to medium to high. These results are consistent with the idea that high self-esteem children rationalize their antisocial conduct.

Although the disposition-rationalizing hypothesis specifies that self-esteem moderates the impact of aggression on cognition, and therefore it is appropriate to evaluate the hypothesis by treating self-esteem as the moderator in the follow-up results reported in Table 6, it is also possible to consider the significant interactions by examining the impact of Time-1 self-esteem on Time-2 cognition at different levels of Time-1 aggression (i.e., by treating Time-1 aggression as the moderator).

Results of such analyses are given in Table 7. Noteworthy is that the beta coefficients in the first column are uniformly negative, with two reaching significance. These data suggest that for children who are non-aggressive, high self-esteem is not problematic but in fact inhibits the development of aggression-encouraging cognitions.

Discussion

The results of Study 1 support the view that antisocial (aggressive) children who have high self-esteem react to their aggressive conduct with a variety of self-enhancing and aggression-justifying strategies, including viewing the self as more powerful and successful, viewing the rewards of aggression as more desirable, and viewing the inflicting of harm and suffering on one's victims as less objectionable. Low self-esteem children on the other hand, do not appear to be inclined to react to their aggressive actions in these self-serving, aggression-encouraging ways.

While these results are consistent with a disposition-rationalizing mechanism, it is possible that other factors may also have contributed. For instance, aggressive children who have high self-esteem may enact their aggression more confidently or with greater success than aggressive children with less self-esteem (Perry, Perry, & Kennedy, 1992), and these qualities may have mediated the effects. Also, it is likely that the high self-esteem of aggressive children is insecure (e.g., unstable, inauthentic), and the insecurity of the high self-esteem may account for the results. Therefore, direct assessments of the qualities of children's aggression (e.g., efficacy) and of the security of their self-esteem would be desirable in future research.

Regardless of the mechanism(s), it is clear that high self-esteem aggressors are inclined to increase their aggression-encouraging beliefs over time. This is likely to sustain their antisocial behavior, bringing grief not only to their victims but also, ultimately, to themselves (for instance via peer rejection and academic difficulties; Coie & Dodge, 1998).

No support was found for the disposition-activating hypothesis that high self-esteem encourages children to act on their aggressive cognitions. Several factors might have contributed to the failure to confirm this hypothesis. First, children with high self-esteem who harbor aggressive cognitions may retaliate immediately to ego threats but may not increase in trait level of aggression over a school year; future research might include assessment of aggression as an immediate response to provocation. Second, high self-esteem may cause children to act on aggressive cognitions only when their self-esteem is insecure. Third, perhaps the cognitive dimensions under study were not ones that are the most relevant to an aggression-activating mechanism. Perhaps high self-esteem is more likely to transform hostile attributional bias or aggressive goals, neither of which was investigated here, into aggressive action. Finally, the relatively high over-time stability of the aggression measure may have made it difficult to identify predictors of change.

Study 2: Avoidance of the Mother

This one-year longitudinal study also evaluated the disposition-activating and disposition-rationalizing hypotheses, but with avoidant behavior toward the mother serving as the antisocial behavior. Here, the disposition-activating hypothesis is that high self-esteem causes children to act on cognitions that encourage avoidance of the mother. Presumably, avoidant children experience the mother as aversive and are trying to exit the relationship. Thus, I examined whether high self-esteem spurs avoidant behavior in reaction to five qualities of perceived mothering—harassment, unreliable support, low monitoring, low affectionate contact, and intrusive overprotectiveness. The first four of these perceived maternal qualities have been shown to be associated (concurrently) with preadolescents' avoidant stance toward the mother (Yunger et al., 2005).

The avoidance-rationalizing hypothesis is that high self-esteem leads avoidant children to justify their avoidance of their mother by strengthening their perceptions of her as an inept, hostile, uncaring, blameworthy parent who deserves the avoidant treatment she is receiving. Adults with avoidant romantic attachments, compared with those with more secure relationships, tend to self-enhance by psychologically distancing themselves from their partners—by seeing them as bad and as different from themselves, and by projecting unwanted traits onto them (Hart, Shaver, & Goldenberg, 2005; Mikulincer, Dolev, & Shaver, 2004; Mikulincer & Horesh, 1999). Such strategies presumably allow avoidant persons to cast themselves in a favorable and superior light relative to their partner, thereby protecting their self-esteem. It is

therefore suggested that high self-esteem intensifies these efforts of avoidant persons to keep their lofty sense of self afloat.

The antisocial behavior under focus involved active avoidance of the mother. However, preoccupied attachment towards the mother was also assessed to determine whether the processes under study were general to any insecure attachment style or specific to antisocial behaviors (i.e., avoidance of the mother). I did not expect either the disposition-activating or the disposition-rationalizing hypothesis to be confirmed with respect to preoccupied behavior. Preoccupied behavior involves clingy, fearful, distressed responses that are likely to have less of a volitional, deliberate, willful quality than avoidant attachment. It would seem that self-esteem would not be highly relevant to the activation or rationalization of such behavior.

Method

Participants. Participants were 407 children (213 girls, 194 boys) who were in the fourth grade at initial testing. Children attended five relatively small elementary schools serving middle and lower-middle class neighborhoods in southeast Florida. Participating children represented 67% of all fourth graders at the schools. The sample included 113 Black children, 83 Hispanic children, and 211 White children. The sample comprised two cohorts, with Cohort 1 ($n = 156$) tested in the winters of 2001 and 2002, and Cohort 2 ($n = 251$) tested in the winters of 2002 and 2003. The children averaged 11 years and 1 month during the first testing session (age ranged from 9 year 1 month to 12 years 9 months).

Procedure. When in the fourth grade (Time 1) and again in the fifth grade (Time 2), children responded to self-report scales assessing self-esteem, avoidant

attachment, preoccupied attachment, and perceptions of the mother. Additional measures not relevant to the present report were also collected. Children were individually tested in a quiet room at their school by one of several female graduate assistants who read the items to the child.

Measures. *Self-esteem* was assessed using Harter's (1985) Global Self-worth scale, as in Study 1; the Time-1 Cronbach alpha was .72.

Avoidant attachment was assessed with a 10-item scale adapted by Yunger et al. (2005) from Finnegan et al.'s (1996) original scale. This measure was designed to identify children who deny affection toward the mother, avoid using her as a secure base during exploration and challenges, and refuse to seek her when upset. The format of the items was that developed by Harter (1982) to minimize the influence of social desirability response bias. Each item described two kinds of children—those engaging in avoidant behavior and those engaging in a nonavoidant way. Children first decided which kind of children they resembled more and then indicated whether this choice was “sort of true” or “very true” for them. Scores could range from 1 to 4. Time-1 and Time-2 Cronbach alphas were .84 and .85.

Preoccupied attachment was also assessed with a 10-item scale adapted by Yunger et al. (2005) from Finnegan et al.'s (1996) original scale. This measure was designed to identify children who had a strong need for the mother in both stressful and novel situations, have trouble separating from the mother, experience continued distress upon reunion, and have trouble exercising age-appropriate autonomy due to excessive need for the mother. The response format for these items was similar to that

of the instrument measuring avoidant attachment. Scores could range from 1 to 4. Time-1 and Time-2 Cronbach alphas were .78 and .79.

Five dimensions of perceived maternal behavior were assessed in a separate questionnaire. The first dimension was the mother's provision of *reliable support* (eight items). This was assessed using a shortened form of the Kerns's Security Scale (Kerns, Klepac, & Cole 1996), which captures the degree to which the caregiver is perceived as loving, accessible, and sensitive when needed for help or communication. The second dimension was perceived maternal *overprotectiveness* (12 items), or children's perception that the mother discourages exploration and other exciting activities (e.g., from fear the child will get sick or injured). The third dimension (eight items) was perceived *harassment*, or children's perception of angry, rejecting, and humiliating behavior by the mother. The fourth dimension (six items) was perceived *affectionate contact* (e.g., the mother is viewed as participating with the child in joint recreational activities). The fifth dimension (six items) was perceived maternal *monitoring* (i.e., the child reports the mother as knowing the child's whereabouts, activities, and companions). These last five scales were drawn from Finnegan et al. (1998) and Yunger et al. (2005). Cronbach alphas for the foregoing measures, respectively, for Time 1 (Time 2) were .72 (.77); .73 (.78); .77 (.76); .76 (.80); and .67 (.68). (See appendix for a copy of the instruments).

Results

Results are presented in four sections. First, means and standard deviations of the measures are presented. Second, intercorrelations of the measures are presented. Finally, two sections report multiple regression analyses that tested the disposition-

activating and the disposition-rationalizing hypotheses. Additionally, within each of the four foregoing sets of results, cohort, ethnicity/race, and sex differences in the measures are examined. Therefore, cohort, ethnicity/race, and sex differences are not devoted separate sections in the results, but are incorporated into each of the four subsections of the results. It is also important to note that no hypotheses were made regarding cohort, ethnicity/race, or sex, and few differences were found. The few differences that were significant are highlighted in the following sections.

Means and standard deviations of the measures. Table 8 presents the means and standard deviations of all the measures in the study. Effects of sex were tested with cohort and ethnicity/race controlled, and effects of ethnicity/race were tested with cohort and sex controlled. There were several significant sex and ethnicity/race differences ($p < .05$). Boys reported higher avoidance of the mother at both times of testing. Girls reported higher preoccupation with their mothers, and they scored higher on perceived maternal monitoring and affectionate contact. Ethnic/race differences were also observed for self-esteem, monitoring, and overprotectiveness; the group means are given in Table 8.

Intercorrelations of measures. Table 9 displays the associations among the measures with child sex, cohort, and ethnicity/race controlled (because the means of some measures differed with these variables). Avoidant and preoccupied attachment and the perceived parenting variables showed moderate (and similar) degrees of stability over the one-year period. Correlations among the perceived parenting measures were generally modest to moderate. Self-esteem was associated with other variables in ways that might be expected based on previous studies.

The disposition-activating hypothesis: Does high self-esteem energize avoidance by children who perceive their mother negatively? In other words, does self-esteem at Time-1 moderate the association between Time-1 parenting cognitions and changes in avoidance from Time-1 to Time-2? This hypothesis was evaluated in five regression analyses, one for each perceived maternal variable. The dependent variable was always Time-2 avoidance. In each analysis, child sex, cohort, ethnicity/race (two sets of dummy coded variables), and Time-1 avoidance were entered on the first step. On the second step, Time-1 self-esteem and a Time-1 perceived parenting measure (e.g., harassment) were entered. On the third step, the focal interaction of self-esteem and the perceived parenting measure was tested. Supplementary analyses were run to see whether child sex, ethnicity/race, or cohort moderated any focal two-way interaction. In these supplementary analyses, child sex, ethnicity/race or cohort (depending on the supplementary focus, the other two variables would be entered as controls) and the Time-1 avoidance were entered on the first step; Time-1 self-esteem and Time-1 parenting cognition were entered on the second step; the interaction of self-esteem and parenting cognition was tested on the third step; the supplementary interactions of self-esteem by sex/ethnicity-race/cohort, and parenting cognition by sex/ethnicity-race/cohort were entered on the fourth step; the three way interaction of self-esteem by parenting cognition and sex/ethnicity-race/cohort was entered on the fifth step.

There was limited support for the hypothesis that self-esteem motivates avoidance by children who view their mother negatively (Table 10a-e). In one of the supplementary analyses, the three-way interaction of self-esteem x perceived

maternal monitoring x sex was significant, $F = 8.04, p < .005$. When a separate regression analysis was run for each sex, only for girls was the focal two-way interaction (self-esteem x monitoring) significant, $F = 10.68, p < .001$. Follow-up tests showed the predicted pattern: perceived maternal monitoring increasingly inhibited avoidance as the level of girls' self-esteem moved from low ($-1 SD$) to medium ($0 SD$) to high ($+1 SD$), respective betas = $.07, ns$; $-.10, ns$; and $-.27, p < .002$. Thus, girls (but not boys) with high self-esteem who view their mother as unaware of their whereabouts, activities, and companions reported greater avoidance of their mother over time. However, high self-esteem did not transform other negative perceptions of the mother into avoidant behavior toward her.

The disposition-rationalizing hypothesis: Does high self-esteem lead avoidant children to view their mother negatively? In other words, does self-esteem at Time-1 moderate the association between Time-1 avoidance and changes in parenting cognitions from Time-1 to Time-2? This hypothesis was examined in five regression analyses, with the Time-2 level of each perceived parenting variable taking a turn as the dependent variable. In each analysis, child sex, cohort, ethnicity/race, and the Time-1 perceived parenting variable were entered on the first step; Time-1 self-esteem and Time-1 avoidance were entered on the second step; and the focal interaction of self-esteem and avoidance was tested on the third step (Table 11a-e). Supplementary analyses examined whether child sex, ethnicity/race, or cohort moderated any focal two-way interaction. In these supplementary analyses, child sex, ethnicity/race or cohort (depending on the supplementary focus, the other two variables would be entered as controls) and the Time-1 parenting cognition were

entered on the first step; Time-1 self-esteem and Time-1 avoidance were entered on the second step; the interaction of self-esteem and avoidance was tested on the third step; the supplementary interactions of self-esteem by sex/ethnicity-race/cohort, and avoidance by sex/ethnicity-race/cohort were entered on the fourth step; the three way interaction of self-esteem by avoidance and sex/ethnicity-race/cohort was entered on the fifth step.

The focal two-way interaction (of self-esteem and avoidance) predicted change in perceived harassment ($F = 6.98, p < .009$) and perceived monitoring ($F = 10.25, p < .001$). Also, the supplementary three-way interaction of self-esteem, avoidance, and child sex predicting reliable support was significant ($F = 5.30, p < .03$), and when the focal two-way interaction was examined separately for each sex it was significant for girls ($F = 7.97, p < .005$) but not for boys.

Each significant two-way interaction conformed to the predicted pattern: high self-esteem magnified the contribution of avoidant attachment to a negative view of the mother. Table 12 displays the results of the follow-up Aiken and West (1991) tests. These results are consistent with the notion that high self-esteem children rationalize their antisocial conduct via a self-enhancing strategy that disparages their adversary—in this case, their mother.

Table 13 gives the results of interaction follow-up analyses in which avoidance is treated as the moderator of the impact of self-esteem on perceptions of the mother. From the entries in the first column, it can be discerned that high self-esteem is not problematic for children who do not avoid their mothers; in fact, for

children low in mother avoidance, higher self-esteem appears to promote positive perceptions of the mother.

Are these effects general or specific to antisocial (avoidant) behavior? In a separate set of analyses, preoccupied attachment towards the mother was also considered to see whether the processes observed were general to any insecure attachment style or specific to antisocial behaviors (i.e., avoidance of the mother). Therefore, the disposition-activating and the disposition-rationalizing hypotheses were examined with preoccupied attachment towards the mother serving as the focal behavior. The disposition-activating and disposition-rationalizing hypotheses were evaluated using similar hierarchical regression analyses as were employed to study avoidance (Tables 10 & 11). There was no support for either the disposition-activating or the disposition-rationalizing hypothesis with regards to preoccupied behavior (Tables 14 & 15). These results suggest that the behavior rationalizing effects found in this study are specific to antisocial behaviors (avoidance of the mother) and cannot be generalized to other insecure attachment styles.

Discussion

Just as in Study 1, there was support for the disposition-rationalizing hypothesis, that is, children with high self-esteem and a dismissive stance toward their mother increasingly viewed her in a negative light over time. Low self-esteem children with avoidant tendencies on the other hand, were not inclined to engage in self-enhancing disparagement of their mother. Further, these processes were only observed in avoidantly attached children and were not associated with another insecure attachment style (preoccupied). It is likely that avoidant children are locked

in a power struggle with their mother, and avoidant children who have high self-esteem may devalue their mother because this strategy discredits her, making her less threatening, and, by contrast, making themselves feel morally superior and blameless.

Although results fit a disposition-justifying hypothesis, other processes may also have contributed. For instance, high self-esteem may also be associated with avoidant children behaving in ways that elicit real, not imaginary, increased negative treatment by the mother, and the fact that avoidant children with high self-esteem view their mother as monitoring them less and less over time may reflect more successful avoidance of their mother by these children. High self-esteem may also be associated with avoidant children perceiving and remembering maternal behaviors that are consistent with their sense that their mother may not love them or is poised to fight them. It is also possible that avoidant children with high self-esteem are becoming more accurate over time in their perception of a mother who has been rejecting or disengaged all along. In future research measures of real child and mother behavior should be collected.

The mounting evidence that people with high but insecure self-esteem are likely to engage in ego-enhancing tactics also makes defensive ego-protection a viable explanation of the results. However, if the increased disparagement of the mother is ego-defensive, additional research is needed to better understand the specific mediating mechanisms. Research with adults indicates that avoidant individuals sometimes project onto their interaction partners the very traits that they view as undesirable in themselves (Mikulincer & Horesh, 1999); perhaps avoidant children with high self-esteem are doing this. Another possibility is that avoidant

children with high self-esteem have low implicit self-esteem, and the explicit-implicit incongruity may be a crucial mediator. Regardless of the specific mechanism(s) involved, the results point to the novel (and somewhat counterintuitive) conclusion that high self-esteem magnifies, rather than minimizes, the relationship-undermining effects of an avoidant attachment.

The aftermath of an avoidant attachment in preadolescence warrants further investigation, especially as affected by self-esteem levels. Given the escalation of negative attributions to the mother by high self-esteem avoidant children, these children may be most likely to trade the mother-child relationship for relationships with peers, especially deviant peers such as other avoidant and antisocial children like themselves (Hodges et al., 1999). Although low self-esteem avoidant children may be less likely to make a premature exit from the mother-child relationship, they may be at greater risk for depression. However, because low self-esteem avoidant children are less likely than their high self-esteem counterparts to get caught up in a vicious cycle of mutually exacerbating avoidance and negative perception of the mother, they may actually be the more likely eventually to abandon their avoidant relationship stance.

Although high self-esteem may lead avoidant persons who want out of a relationship to make negative attributions about a partner, high self-esteem may lead persons who are satisfied with a relationship to be especially forgiving of irksome behavior by their partner (e.g., Murray et al., 2002). Consistent with this, in the present study children who had high self-esteem but were not avoidant (i.e., who enjoyed their mother and used her as a safe haven) developed the most favorable

perceptions of her. Self-esteem may interact with relationship goals and partner perceptions to affect relationship functioning and satisfaction in similar ways across the age span. I believe that if adults who were once enamored with a relationship partner but decide they want to end the relationship (i.e., shift toward an avoidant stance), high self-esteem will make the exit easier for them; low self-esteem people may be more likely to remain longer in an unsatisfying relationship.

There was slim support for the disposition-activating hypothesis that self-esteem would lead children to avoid a mother whom they perceive negatively. However, high self-esteem girls were more likely than girls with low self-esteem to dismiss a mother perceived as low in monitoring. In this study, maternal monitoring was assessed as the mother's knowledge of the child's conduct rather than as the mother's active attempts to control the child, and children who perceived their mother as low in monitoring may simply not have been spontaneously informing their mother of their activities, friends, and whereabouts (Kerr & Stattin, 2000; Stattin & Kerr, 2000). Thus, girls with high self-esteem who are disinclined to communicate with their mothers may be the most likely to develop avoidant tendencies, at least during preadolescence.

Traditional attachment theory holds that avoidant attachment derives from perceptions of parents as unavailable or rejecting (Ainsworth, 1979). This may be true in infancy, but my data suggest that by preadolescence the causal arrow between avoidant attachment and negative perceptions of parents may run primarily in the opposite direction: avoidant attachment at Time 1 predicted deterioration on all five dimensions of perceived parenting (either in conjunction with high self-esteem or as a

main effect). However, perceived parenting failed to forecast avoidant attachment (with the exception noted in the previous paragraph). Evidence for the primacy of self-views (i.e., self-views preceding beliefs about how others feel about the self) has also been found for adolescents and adults (Cassidy, Ziv, Mehta, & Feeney, 2003; Kenny & DePaulo, 1993; Sedikides & Skowronski, 1995). By preadolescence, avoidant children may be rejecting their parents rather than reacting to their parents' rejection. Moreover, by strengthening their negative views of their parents, they may no longer allow themselves to feel loved. Ironically, this may be truer for high self-esteem children than for low self-esteem children.

Because in this study all the variables were self-reported, one might wonder whether shared method variance (e.g., response bias, mood) accounted for the findings. Several considerations suggest that this is unlikely. If shared method variance were responsible for associations among these variables, the disposition-activating hypothesis should have been confirmed as often as the disposition-rationalizing hypothesis; this was not the case. Moreover, the fact that the disposition-rationalizing hypothesis clearly received stronger support not only in this study but also in Study 1 (where the measures were not all self-reported) suggests that something more than shared method variance underlies the pattern. Also, the longitudinal design and regression analyses significantly reduced the threat of shared method variance. In these analyses, the Time-1 level of the outcome variable, which is self-reported, was controlled on the first step, and therefore influences of self-report biases tend to be reduced (Harold & Conger, 1997; Kochenderfer & Ladd, 1996; Steinberg, Lamborn, Dornbusch, & Darling, 1992).

General Discussion

Although high self-esteem surely makes people feel good and may often carry developmental benefits (e.g., confident pursuit of goals), it also appears sometimes to carry developmental costs. Previous work had shown that people with high but insecure self-esteem are prone to anger and aggression. The present research explored two additional possible dark sides of high self-esteem—that high self-esteem encourages children who harbor antisocial thoughts to act on those thoughts (the disposition-activating hypothesis) and that it encourages children who behave in antisocial ways to rationalize their conduct, as by derogating their adversaries (the disposition-rationalizing hypothesis). In two longitudinal studies, strong support was found for the latter, but not the former, hypothesis: children with high self-esteem and aggressive or avoidant tendencies increasingly adopted cognitions that could justify their prior (and, very likely, their future) antisocial conduct. The results suggest that over time, aggressive children with high self-esteem increasingly valued the rewards that aggression offers and devalued their victims, and avoidantly attached children with high self-esteem increasingly viewed their mother as harassing and uninvolved.

These results may be explained in a number of ways, but one interpretation is that high self-esteem leads children with antisocial proclivities to twist their perceptions of their own and their adversaries' behavior in self-serving, ego-protective ways. This process is similar to Festinger's cognitive dissonance reduction model which states that individuals rationalize their attitudes to agree with their actions (Festinger & Carlsmith, 1959), as this attitude change serves to alleviate

psychological discomfort. Thus, by belittling and blaming others, for example, they can feel better about themselves and can continue their antisocial ways undeterred by anticipated negative self-sanctions.

Additional research is needed, however, to determine the validity of various alternative mechanisms underlying the observed effects. For example, high self-esteem may cause aggressive and avoidant children simply to enact more forcefully or effectively their antisocial behavior, causing reactions from the environment (e.g., reward for aggression, withdrawal by mother) that the children notice and remember. Still, given the large experimental literature confirming the ego-enhancing tendencies of high self-esteem persons, an ego-enhancement explanation remains viable. In future work, it would be useful to include assessments of secure versus insecure high self-esteem (e.g., stability, authenticity) to see if the insecurity of high self-esteem moderates or mediates the rationalization effects. Regardless of the precise mechanisms involved, however, the fact remains that high self-esteem children appear to be at greater risk than low self-esteem children for consolidating a set of cognitions that are likely to perpetuate their antisocial conduct and, in the case of avoidant children, to perpetuate their basic sense of being unloved.

It has been customary to construe children's social cognitions as fairly accurate internalized representation of their social experiences (e.g., parental treatment). The fact that there exist discrepancies between children's real experiences and their representations of experiences (Bandura, 1986), however, requires that more attention be paid to how children ignore, latch onto, maximize, minimize, distort, imagine, or otherwise go beyond the data to construct social cognitions. High self-

esteem may bias this construction process, by causing children to generate representations that are consistent with their own behavior.

That I found more disposition-rationalizing than disposition-activating effects of high self-esteem is consistent with Baumeister's (1998) suggestion that high self-esteem has less effect on behavior than on affective self-protection. However, I am not yet ready to abandon the disposition-activating hypothesis. Perhaps if high self-esteem is insecure, or if aggression is assessed immediately in response to threatening cues, more evidence that high self-esteem activates antisocial cognitions would be found. Further, perhaps a six to twelve month short-term longitudinal study is insufficient to garner strong evidence for the disposition activating hypothesis; a long-term longitudinal study could perhaps find evidence for this hypothesis. Also, high self-esteem may lead people to act on social cognitions that encourage thoughtful, considerate, prosocial conduct, such as rescuing or protecting victimized peers (Salmivalli et al., 1999; 2005). In other words, a disposition-activating function for high self-esteem may exist for traits other than the antisocial ones studied here.

In the last two decades or so there has been a "self-esteem boost movement" in the United States. I believe my findings suggest a word of caution to parents, educators and policy makers who wish to develop or implement intervention programs to boost children's self-esteem. If a child is antisocially inclined, then enhancing the child's self-esteem may lead him/her to generate antisocial cognitions that justify sustained, or even increased, antisocial behavior. In summary, when paired with antisocial conduct, high self-esteem would seem to spell trouble.

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Appendix A1 (Study 1)

“What I am Like”

- | | | | |
|----|--|---------------------|--|
| 1. | Some kids find it <u>hard</u> to make friends. | | Other kids find it pretty <u>easy</u> to make friends. |
| | Really true for me | Sort of true for me | Sort of true for me |
| | | | Really true for me |
| | | BUT | |
| 2. | Some kids are often <u>unhappy</u> with themselves. | | Other kids are pretty <u>pleased</u> with themselves. |
| | Really true for me | Sort of true for me | Sort of true for me |
| | | | Really true for me |
| | | BUT | |
| 3. | Some kids have <u>a lot</u> of friends. | | Other kids <u>don't</u> have a lot of friends. |
| | Really true for me | Sort of true for me | Sort of true for me |
| | | | Really true for me |
| | | BUT | |
| 4. | Some kids <u>don't</u> like the way they are leading their life. | | Other kids <u>do</u> like the way they are leading their life. |
| | Really true for me | Sort of true for me | Sort of true for me |
| | | | Really true for me |
| | | BUT | |
| 5. | Some kids are <u>happy</u> with themselves as a person. | | Other kids are often <u>not</u> happy with themselves. |
| | Really true for me | Sort of true for me | Sort of true for me |
| | | | Really true for me |
| | | BUT | |
| 6. | Some kids would like to have a lot more friends. | | Other kids have as many friends as they want. |
| | Really true for me | Sort of true for me | Sort of true for me |
| | | | Really true for me |
| | | BUT | |

- | | |
|--|---|
| 7. Some kids are always doing things with <u>a lot</u> of kids. | Other kids usually do things by <u>themselves</u> . |
| Really true for me | Sort of true for me |
| BUT | |
| Really true for me | Sort of true for me |
| 8. Some kids <u>like</u> the kind of <u>person</u> they are. | Other kids often wish they were someone else. |
| Really true for me | Sort of true for me |
| BUT | |
| Really true for me | Sort of true for me |
| 9. Some kids are very <u>happy</u> being the way they are. | Other kids wish they were <u>different</u> . |
| Really true for me | Sort of true for me |
| BUT | |
| Really true for me | Sort of true for me |
| 10. Some kids wish that more people their age liked them. | Other kids feel that most people their age <u>do</u> like them. |
| Really true for me | Sort of true for me |
| BUT | |
| Really true for me | Sort of true for me |
| 11. Some kids are <u>popular</u> with others their age. | Other kids are <u>not</u> very popular. |
| Really true for me | Sort of true for me |
| BUT | |
| Really true for me | Sort of true for me |
| 12. Some kids are <u>not</u> very happy with the way they do things. | Other kids think the way they do things is <u>fine</u> . |
| Really true for me | Sort of true for me |
| BUT | |
| Really true for me | Sort of true for me |

Key: Global self-worth (self-esteem): 2, 4, 5*, 8*, 9*, 12
 Social self-worth: 1, 3*, 6, 7*, 10, 11* (*Not included in present study*)
 *reverse-scored

Appendix A2 (Study 1)

“What I Can Do”

1. Someone is sitting in your seat.

Some kids would not be able to ask the other kid to move.

Other kids would be able to ask the other kid to move.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

2. Someone has hurt your feelings, and you feel like hurting them back.

Some kids are good at hurting others.

Other kids aren't so good at hurting others.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

3. A group of kids want to play a game you don't like.

It would be easy for some kids to ask the group to play a different game.

For other kids it would be hard to ask the group to play a different game.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

4. A kid gets in your way while trying to get on the bus.

It is easy for some kids to shove the kid out of the way.

For other kids it is hard to shove the kid out of the way.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

5. The opposing team is cheating.

Some kids aren't good at telling the other team the rules.

Other kids are good at telling the other team the rules.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

6. Someone picked a fight with you.

Fighting is hard for some kids.

Really true for me Sort of true for me

BUT

For other kids, fighting is easy.

Sort of true for me Really true for me

7. On the playground, a kid bumps into you.

Some kids would not be able to call the kid nasty names.

Really true for me Sort of true for me

BUT

Other kids would be able to call the kid nasty names.

Sort of true for me Really true for me

8. Another kid is making fun of your new haircut.

Some kids would find it easy to tell the kid to stop.

Really true for me Sort of true for me

BUT

Other kids would have a hard time asking the kid to stop.

Sort of true for me Really true for me

9. A kid is always going first on a game.

Some kids are good at telling that kid it's their turn to go first.

Really true for me Sort of true for me

BUT

Other kids aren't good at telling that kid it's their turn to go first.

Sort of true for me Really true for me

10. Someone teased your best friend, and you feel like teasing the kid back.

Some kids are not able to tease other kids and call them nasty names.

Really true for me Sort of true for me

BUT

Other kids are able to tease other kids and call them nasty names.

Sort of true for me Really true for me

11. A kid won't let you play with a game you want to.

Pushing the kid and grabbing the game is easy for some kids.

Really true for me Sort of true for me

BUT

Other kids find it difficult to push the kid and grab the game.

Sort of true for me Really true for me

12. A kid takes your cookies during lunch.

It would be hard for some kids to ask for their cookies back.

Other kids would find it easy to ask for their cookies back.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

13. While arguing with a kid,

Some kids get nervous when they try to stand-up for themselves.

Other kids don't get nervous when they try to stand up for themselves.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

14. You are racing with a kid to get to the water fountain

Some kids are not able to trip the kid so they can get to the water fountain first.

Other kids are able to trip the kid so they can get to the water fountain first.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

15. While arguing with a kid,

Some kids aren't very good at telling the kid their opinion.

Other kids are very good at telling the kid their opinion.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

16. A kid makes you mad.

Some kids are really good at yelling at the kid.

Other kids are not really good at yelling at the kid.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

Key: Self-efficacy for aggression: 2*, 4*, 6, 7, 10, 11*, 14, 16*.
Self-efficacy for assertion: 1, 3*, 5, 8*, 9*, 12, 13, 15.

(Not included in present study)

*reverse-scored

Appendix A3 (Study 1)

“Beliefs Questionnaire” Part I (Boys form)

1. You are real thirsty and need a drink of water. Because he is drinking so slowly, you’re thinking about pushing a boy from your class away from the water fountain so you can get a drink. When some kids do this, they feel like they’re the master, but other kids wouldn’t care about feeling like the master. How would you feel about it?

Some kids would feel like they’re the master.

Other kids wouldn’t care about feeling like the master.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

2. Your teacher is splitting up the class for group projects. You and a friend want to be in the same group, but aren’t. You decide to ask a boy in your class to trade groups with you, but he doesn’t want to. To make him trade, you’re thinking about calling him names and making fun of him. This might make some kids feel like a big shot. Some kids don’t care about feeling like a big shot, but other kids think it’s important to feel like a big shot. How would you feel about it?

Some kids don’t care about feeling like a big shot.

Other kids think it’s important to feel like a big shot.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

3. You are having trouble working on a math problem your teacher asked you to do. A boy in class notices and starts to whisper and joke about it. You’re thinking about hurting his feelings by calling him bad names. When some kids do this, it’s because they want to feel more powerful than the other kid, but other kids don’t care about feeling more powerful than other kids. How would you feel about it?

Some kids don’t care about feeling like a big shot.

Other kids think it’s important to feel like a big shot.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

4. You and your class are going on a field trip. A boy in your class pushes ahead of you to get the last window seat on the bus. Because you want to sit by the window, you're thinking about pulling him out by the arm and taking his seat. This might make some kids feel like they control the other kid. Some kids wouldn't care about controlling the other kid, but other kids would want to control the other kid. How would you feel about it?

Some kids wouldn't care about controlling the other kid.

Other kids would want to control the other kid

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

5. You're out in the school yard when a boy in your class runs up to you and starts trying to shove you into a puddle of water. You're thinking about knocking him down into the puddle instead. When some kids do this, it's because they want to feel like they're the boss, but other kids don't really care about being the boss. How would you feel about it?

Some kids want to feel like they're the boss.

Other kids don't care about being the boss.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

6. During a basketball game at school, a boy in your class who's on your team keeps saying nasty things to you. You're thinking about saying nasty things back to him to shut him up. This might make some kids feel like the winner. Some kids wouldn't care if they were the winner, but other kids would want to be the winner. How would you feel about it?

Some kids wouldn't care if they were the winner.

Other kids would want to be the winner.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

7. You're running in a race and it looks like the other kid is going to win. You're thinking about tripping the boy so you can win. Some kids wouldn't care if they won the race, but other kids would feel it was important to win the race. How would you feel about it?

Some kids wouldn't care if they won the race.

Other kids would feel it was important to win the race.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

8. You're outside at school when it starts to rain. You run to go indoors but just as you get near the door a boy steps in front of you. It looks like the kid is trying to block your way. You're thinking about hitting and pushing the kid out of the way. This might make some kids feel like they were in charge. Some kids would want to be in charge, but other kids wouldn't care if they were in charge. How would you feel about it?

Some kids would want to be in charge.

Other kids wouldn't care if they were in charge.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

Key: Outcome value for rewards: 1*, 2, 3*, 4, 5*, 6, 7, 8*.

* reverse-scored

Appendix A4 (Study 1)

“Beliefs Questionnaire” Part II (Boys form)

1. You and your class are going on a field trip. There is only one window seat left on the bus. Just as you start to sit down in it, a boy slides in front of you and takes seat. You’re thinking about pulling the boy out by the arm to get the seat. If you did this, do you think you’d get the seat?

Very sure I would get the seat.
 Pretty sure I would get the seat.
 Pretty sure I would not get the seat.
 Very sure I would not get the seat.

2. There is only one piece of apple pie left in the cafeteria line and you want it. The boy in front of you takes it, and you’re thinking about yelling at the kid and threatening him to get a piece of pie. If you did this, do you think you’d get the piece of pie?

Very sure I would get the piece of pie.
 Pretty sure I would get the piece of pie.
 Pretty sure I would not get the piece of pie.
 Very sure I would not get the piece of pie.

3. You are real thirsty and need a drink of water. As you get in line at the fountain, a boy cuts ahead of you. You’re thinking about shoving the kid out of your way. If you did this do you think you would get a drink before the kid?

Very sure I would get a drink first.
 Pretty sure I would get a drink first.
 Pretty sure I would not get a drink first.
 Very sure I would not get a drink first.

4. A boy cuts in front of you on the bus line. You’re thinking about calling him nasty names until he moves. If you did this, do you think the kid would move?

Very sure the kid would not move.
 Pretty sure the kid would not move.
 Pretty sure the kid would move.
 Very sure the kid would move.

5. While at school you are playing a game that another kid also wants to play. The kid reaches over and tries to grab the game away from you. You are thinking about keeping it from him by knocking his hand away. If you did this, do you think you would get to keep the game?

Very sure I would not get to keep the game.
 Pretty sure I would not get to keep the game.
 Pretty sure I would get to keep the game.
 Very sure I would get to keep the game.

6. A kid is eating your favorite candy and won't give any to you. You're thinking about teasing the kid in front of his friends and telling him you won't stop until he gives you some of his candy. If you did this, do you think the kid would give you some of his candy?

Very sure he would give me some of his candy.
 Pretty sure he would give me some of his candy.
 Pretty sure he would not give me some of his candy.
 Very sure he would not give me some of his candy.

7. You bring a bag of chips to school one day. A boy notices it and grabs it from you. So you're thinking about hitting the boy to get the chips back. If you did this, do you think you'd get the chips back?

Very sure I would get the chips back.
 Pretty sure I would get the chips back.
 Pretty sure I would not get the chips back.
 Very sure I would not get the chips back.

8. A boy knocks into you and you drop all of your books. You're thinking about yelling at the kid to get him to pick up your books. If you did this, do you think the kid would pick up your books?

Very sure the kid would not pick up my books.
 Pretty sure the kid would not pick up my books.
 Pretty sure the kid would pick up my books.
 Very sure the kid would pick up my books.

Key: Outcome expectancy for rewards: 1*, 2*, 3*, 4, 5, 6*, 7*, 8.
* reverse-scored

Appendix A5 (Study 1)

“How I Feel” Part I (Boys form)

1. You're thinking about teasing a boy for his new shirt because he teased you when you got a new haircut. If you did this, the boy might get upset and cry. Some kids would feel bad if the boy got upset and cried, but other kids wouldn't care if the boy got upset and cried. How would you feel about it?

Some kids would feel bad if the boy got upset and cried.

Other kids wouldn't care if the boy got upset and cried.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

2. After school a boy calls you a name as he is hurrying down the hall to go outside. You're thinking about chasing the kid to give him a kick. If you did this, the boy might start acting like he was really in pain. Some kids wouldn't care if the boy looked like he was in pain, but other kids would feel bad if the boy looked like he was in pain. How would you feel about it?

Some kids wouldn't care if the boy looked like he was in pain.

Other kids would feel bad if the boy looked like he was in pain.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

3. A calls you a nasty name. You're thinking about yelling at him and calling him names back. If you did this he might look hurt and run away. Some kids wouldn't care if he looked hurt and ran away, but other kids would feel bad if he looked hurt and ran away. How would you feel about it?

Some kids wouldn't care if he looked hurt and ran away.

Other kids would feel bad if he looked hurt and ran away.

BUT

Really true for me Sort of true for me

Sort of true for me Really true for me

4. While the teacher isn't looking, a boy takes a pen of yours and throws it away. You're thinking about punching him out later because he did this to you. If you did this, he might look hurt and start to cry. Some kids would be worried if the boy looked hurt and started to cry, but other kids wouldn't care if the boy looked hurt and started to cry. How would you feel about it?

Some kids would be worried if the boy looked hurt and started to cry.

BUT

Other kids wouldn't care if the boy looked hurt and started to cry.

Really true for me Sort of true for me

Sort of true for me Really true for me

5. A boy trips you on your way to the bus. You're thinking about yelling nasty things at him. If you did that, he might look like he was hurt and about to cry. Some kids would feel bad if the boy looked hurt and about to cry, but other kids would not care if the boy looked hurt and about to cry. How would you feel about it?

Some kids would feel bad if the boy looked hurt & about to cry.

BUT

Other kids wouldn't care if the boy looked hurt & about to cry.

Really true for me Sort of true for me

Sort of true for me Really true for me

6. One day while outside, you spot a dollar on the ground. Even though you saw it first, a boy quickly grabs it. You're thinking of hitting the boy to get the dollar. If you did this, the boy might look really sad and hurt. Some kids would be worried if the boy looked sad and hurt, but other kids wouldn't mind if the boy looked sad and hurt. How would you feel about it?

Some kids would be worried if the boy looked sad and hurt.

BUT

Other kids wouldn't mind if the boy looked sad and hurt.

Really true for me Sort of true for me

Sort of true for me Really true for me

7. A boy spills ketchup on your shirt. You're thinking about calling him names and spitting water on him. If you did this, the boy might get embarrassed and look upset. Some kids wouldn't care if the boy got embarrassed and looked upset, but other kids would feel bad if the boy got embarrassed and looked upset. How would you feel about it?

Some kids wouldn't care if the boy got embarrassed and looked upset.

BUT

Other kids would feel bad if the boy got embarrassed and looked upset.

Really true for me Sort of true for me

Sort of true for me Really true for me

8. You are outside playing kickball with your classmates when a boy runs into you as you're both going after the ball. It looks like he ran into you on purpose. You're thinking about chasing him to push him down. If you did this, he might look like crying. Some kids would feel bad if the boy looked like crying, but other kids wouldn't care if the boy looked like crying. How would you feel about it?

Some kids would feel bad if the boy looked like crying.

BUT

Other kids wouldn't feel bad if the boy looked like crying.

Really true for me Sort of true for me

Sort of true for me Really true for me

Key: Outcome value for victim suffering: 1, 2*, 3*, 4, 5, 6, 7*, 8.

* reverse-scored

Appendix A6 (Study 1)

“How I Feel” Part II (Boys form)

1. After school you are hurrying down the hallway to go outside. A boy bumps into you. It looks like he did it on purpose. You’re thinking of hitting the boy for doing this. If you did this, the boy might look hurt. Do you think the boy would look hurt?

 Very sure the boy would not look hurt.
 Pretty sure the boy would not look hurt.
 Pretty sure the boy would look hurt.
 Very sure the boy would look hurt.

2. During recess a boy sticks his tongue out at you and makes you really mad. You’re thinking about calling the boy a nasty name. If you did this, the boy might start to cry. Do you think the boy would cry?

 Very sure the boy would cry.
 Pretty sure the boy would cry.
 Pretty sure the boy would not cry.
 Very sure the boy would not cry.

3. At lunch a boy sits down next to you. When the boy thinks you are not looking, the boy reaches over and takes some of your food. You see the boy do it, and you’re thinking about pulling his chair out from under him and making him fall on the floor. If you did this, the boy might look like he was going to cry. Do you think the boy would look like he was going to cry?

 Very sure the boy would look like he was going to cry.
 Pretty sure the boy would look like he was going to cry.
 Pretty sure the boy would not look like he was going to cry.
 Very sure the boy would not look like he was going to cry.

4. At lunch a boy bumps into you and knocks your food tray on the ground. You’re thinking of swearing at him. If you did this, he might look hurt and run away. Do you think he would look hurt and run away?

 Very sure the boy would not look hurt and run away.
 Pretty sure the boy would not look hurt and run away.
 Pretty sure the boy would look hurt and run away.
 Very sure the boy would look hurt and run away.

5. During class, a boy bumps into you while he is walking to his seat. It looks like he did it on purpose. You're thinking about jabbing him with your ruler. If you did this, the boy might look hurt and in pain. Do you think the boy would look hurt and in pain?

Very sure the boy would not look hurt and in pain.
 Pretty sure the boy would not look hurt and in pain.
 Pretty sure the boy would look hurt and in pain.
 Very sure the boy would look hurt and in pain.

6. At your lunch table, a boy knocks his drink over and it spills all over your homework. You're thinking of yelling at him and spilling your drink on his homework. If you did this, he might look hurt and get upset. Do you think he would look hurt and get upset?

Very sure the boy would look hurt and get upset.
 Pretty sure the boy would look hurt and get upset.
 Pretty sure the boy would not look hurt and get upset.
 Very sure the boy would not look hurt and get upset.

7. On the playground, a boy calls you a name. You're thinking about teasing the boy and throwing a stone at him. If you did this, he might look hurt and in pain. Do you think he would look hurt and in pain?

Very sure the boy would not look hurt and in pain.
 Pretty sure the boy would not look hurt and in pain.
 Pretty sure the boy would look hurt and in pain.
 Very sure the boy would look hurt and in pain.

8. A boy gets you in trouble in class. You're thinking about teasing him during recess in front of his friends. If you did this, he might get embarrassed and look like crying. Do you think he would get embarrassed and look like crying?

Very sure he would get embarrassed and look like crying.
 Pretty sure he would get embarrassed and look like crying.
 Pretty sure he would not get embarrassed and look like crying.
 Very sure he would not get embarrassed and look like crying.

Key: Outcome expectancy for victim suffering: 1, 2*, 3*, 4, 5, 6*, 7, 8*.

* reverse-scored

Appendix A7 (Study 1) Peer Nomination Inventory

	Names of classmates			
1. Is a fast runner. (filler)				
2. Filler item				
3. Kids make fun of him.				
4. He acts like a baby.				
5. On the playground he just stands around.				
6. In a group he share things and gives other people a turn				
7. He gets hit and pushed by other kids.				
8. He seems unhappy and looks sad often.				
9. He tells lies.				
10. He makes noise or bothers you in class.				
11. He's just plain mean.				
12. When other kids are playing he watches them but doesn't join in.				
13. He doesn't talk much.				
14. He gets upset when called on to answer questions in class.				
15. He doesn't follow the rules.				
16. He get picked on by other kids.				
17. He tries to get other kids to play with him even when they don't want to.				
18. He is very strong.				
19. He is always friendly.				
20. He sometimes takes things that belong to someone else.				
21. He makes fun of people.				
22. He complains a lot and nothing makes him happy.				
23. He hits and pushes others around.				
24. He is afraid to do things				
25. He would win an arm wrestling contest				

Key: Aggression: 11, 21, 23

Other scales not included in present study

Victimization: 3, 7, 16; Physical Strength: 18, 25; Dishonesty: 9, 20;

Disruptiveness: 10, 15; Immaturity: 4, 14, 22; Pushy peer entry style: 17;

Withdrawal: 5, 13; Anxiety/depression: 24, 8; Hovering peer entry style: 12;

Social skills: 6, 19.

Appendix A8 (Study 2)

“What I Am Like” (Boys form)

- | | | | |
|----|---|---------------------|--|
| 1. | Some kids are often <u>unhappy</u> with themselves | | Other kids are pretty <u>pleased</u> with themselves |
| | Really true for me | Sort of true for me | |
| | | BUT | |
| | | | Sort of true for me |
| | | | Really true for me |
| 2. | Some kids <u>don't</u> like the way they are leading their life | | Other kids <u>do</u> like the way they are leading their life. |
| | Really true for me | Sort of true for me | |
| | | BUT | |
| | | | Sort of true for me |
| | | | Really true for me |
| 3. | Some kids are <u>happy</u> with themselves as a person. | | Other kids are often <u>not</u> happy with themselves. |
| | Really true for me | Sort of true for me | |
| | | BUT | |
| | | | Sort of true for me |
| | | | Really true for me |
| 4. | Some kids <u>like</u> the kind of person <u>they</u> are. | | Other kids often wish they were someone else |
| | Really true for me | Sort of true for me | |
| | | BUT | |
| | | | Sort of true for me |
| | | | Really true for me |
| 5. | Some kids are very <u>happy</u> being the way they are. | | Other kids wish they were <u>different</u> . |
| | Really true for me | Sort of true for me | |
| | | BUT | |
| | | | Sort of true for me |
| | | | Really true for me |
| 6. | Some kids are <u>not</u> very happy with the way the do things. | | Other kids think the way they do things is <u>fine</u> . |
| | Really true for me | Sort of true for me | |
| | | BUT | |
| | | | Sort of true for me |
| | | | Really true for me |

Key: Global self-worth (self-esteem): 1, 2, 3*, 4*, 5*, 6
 * reverse-scored

Appendix A9 (Study 2)

What Am I Like With My Mother?

1. One day you go to a movie with your friend. After the show, you are waiting for your mother to pick you up to go home. Your mother is very late. Some kids would stay calm until their mother got there, but other kids would be very upset and worried that something might have happened to her. Which is more like you?

Some kids would stay calm until their mother got there

BUT

Other kids would be very upset and worried about her.

Very true for me Sort of true for me

Sort of true for me Very true for me

2. Your mother has been away for a few days but is coming home later in the day. Some kids wouldn't think it is a big deal that she is coming home, but other kids would be looking forward to seeing her. Which is more like you?

Some kids wouldn't think her return is a big deal.

BUT

Other kids would look forward to seeing her.

Very true for me Sort of true for me

Sort of true for me Very true for me

3. One of your teachers says something mean to you at school one day. Some kids would let their mother know they were upset and would talk with her about it, but other kids would not let their mother know they were upset and would not talk to her about it. Which is more like you?

Some kids would let their mother know they were upset and would talk to her about it

BUT

Other kids wouldn't let their mother know they were upset and would not talk to her about it.

Very true for me Sort of true for me

Sort of true for me Very true for me

4. Your mother takes you to the doctor's office for a check-up. While you are sitting in the waiting room, she says she is going to run an errand and will be back to pick you up later. Some kids would be glad their mother left them alone to wait, but other kids would prefer that their mother wait with them. Which is more like you?

Some kids would be glad that their mother left them alone to wait

BUT

Other kids would prefer that their mother wait with them.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

5. You and your mother go to a carnival one evening. Some of the rides look a little scary but they look fun and exciting too. You want your mother to go on some of the rides with you, but your mother says she is tired and just wants to sit on the bench and watch. Some kids would go on the rides alone, but other kids wouldn't go on the rides alone. Which is more like you?

Some kids would go on the rides alone

BUT

Other kids wouldn't go on the rides alone.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

6. You get sick and have to spend a few days in the hospital. Some kids would want their mother to spend the whole time with them in their hospital room, but other kids wouldn't mind if their mother just visited them once or twice a day during visiting hours. Which is more like you?

Some kids would want their mother to spend the whole time with them

BUT

Other kids would not mind if she just visited them during visiting hours.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

7. Your mother says she is thinking about going to visit a relative for a week or two. Some kids would be very upset that she is going away for so long and would try to talk her out of going, but other kids would not try to talk her out of going. Which is more like you?

Some kids would be upset and try to talk her out of going

BUT

Other kids wouldn't be upset and try to talk her out of going.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

8. Let's say that you have a favorite pet, a cat or a dog, that suddenly gets very sick. You are sad about it. Some kids would let their mother know they were feeling sad, but other kids would not let their mother know they were feeling sad. Which is more like you?

Some kids would let their mother know they were feeling sad

BUT

Other kids wouldn't let their mother know they were feeling sad.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

9. You are at the movies with your mother and you have to go out to the bathroom. When you come back in, the movie is so dark that you can't find your mother. Some kids would calmly look for their mother and not be too worried, but other kids would look for their mother and be very upset until they found her. Which is more like you?

Some kids would calmly look for her and not be too worried

BUT

Other kids would look for her and be upset until they found her.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

10. You and your mother are visiting a new shopping center to see what it is like. Your mother suggests that the two of you explore the center together. Some kids would only want to explore it on their own, but other kids wouldn't mind exploring it with their mother. Which is more like you?

Some kids would only want to explore it on their own

BUT

Other kids wouldn't mind exploring it with their mother.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

11. You and your mother go to the movie together. When you go into the theater, you see that it is crowded and you can't find two seats together. Some kids would be sorry that they can't sit with their mother, but other kids would prefer to sit away from their mother anyway. Which is more like you?

Some kids would be sorry they can't sit with their mother

BUT

Other kids would rather sit away from her anyway.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

12. On the way home from school a bully stops you and threatens you. This makes you upset and afraid. When you get home you talk to your mother about it. Some kids would stay close to their mother and talk about it for a long time, but other kids would talk to their mother for a short time and then get over it. Which is more like you?

Some kids would stay close to their mother and talk about it for a long time

BUT

Other kids would talk to her for a short time and then get over it.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

13. One day you and your mother go to the zoo. Your mother says that because she has not seen you much lately, she would like the two of you to look at the animals together. Some kids would be willing to look at the animals with their mother, but other kids would rather look at the animals alone and meet up with their mother later. Which is more like you?

Some kids would be willing to look at the animals with their mother

BUT

Other kids would rather look at the animals alone and meet their mother later.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

14. One day you have a problem with a friend at school. When you get home, your mother can tell that you are upset and starts talking to you about it. Some kids would feel comfortable talking to their mother about their feelings and problems, but other kids would just want their mother to leave them alone. Which is more like you?

Some kids would feel comfortable talking to their mother about their feelings and problems

BUT

Other kids would just want their mother to leave them alone.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

15. You have to go to the doctor for a check up and you are in the waiting room with your mother. Your mother wants to leave you at the doctor's office while she does some shopping. Some kids would be upset and try to make their mother stay, but other kids would not be so upset and wouldn't try to make their mother stay. Which is more like you?

Some kids would be upset and try to make their mother stay

BUT

Other kids wouldn't be so upset and would not try to make their mother stay.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

16. Your mother comes home after being away for a week or two. Some kids would stop what they are doing and run to greet her with a hug or a kiss. But other kids would not stop what they are doing to greet her. Which is more like you?

Some kids would stop to greet her
with a hug or a kiss

BUT

Other kids wouldn't stop to greet
her.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

17. There is an after school sports team that you really want to join, but you realize that you don't know anyone on the team. You ask your mother to go to the tryouts with you. She says she can drive you there but can't stay there with you. Some kids would go only if their mother could stay during the tryouts, but other kids would go even if their mother couldn't stay. Which is more like you?

Some kids would go only if their
mother could stay

BUT

Other kids would go even if she
couldn't stay.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

18. One day you come home from school upset about something. Your mother asks you what the problem is. Some kids wouldn't want to talk to her about it, but other kids would want to discuss it with her. Which is more like you?

Some kids wouldn't want to talk to
her about it

BUT

Other kids would want to talk her
about it.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

19. You and your mother are at a busy shopping mall in Miami, and suddenly you can't find your mother. You are upset, but a little later you find each other. Some kids would soon get over being upset, but other kids would stay worried for a long time that they might get separated again. Which is more like you?

Some kids would soon get over
being upset

BUT

Other kids would stay worried that
they might get separated again.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

20. One day at school the teacher misunderstands something you did and scolds you for it. You become upset. Some kids would stay very upset until they talked to their mother about it, but other kids would be able to calm themselves without talking with their mother. Which is more like you?

Some kids would stay upset until
they talked to their mother about it

BUT

Other kids would be able to calm
themselves without talking to their
mother.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

OK. Now the rest of these questions are short, but they're still about you and how you feel about your mother.

21. Some kids worry that their mom
might not be there when they need
her

BUT

Other kids are sure their mom will
be there when they need her.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

22. Some kids feel like their mom
really understands them

BUT

Other kids feel like their mom does
not really understand them.

Very true
for me

Sort of
true for me

Sort of
true for me

Very true
for me

- | | | | |
|-----|---|------------|---|
| 23. | Some kids wish they could depend on their mom to help them more with their problems | BUT | Other kids think their mom helps them enough with their problems. |
| | Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 24. | Some kids are really sure that their mom would not leave them | BUT | Other kids sometimes wonder if their mom might leave them. |
| | Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 25. | Some kids think their mom doesn't spend enough time with them | BUT | Other kids think their mom does spend enough time with them. |
| | Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 26. | Some kids find it easy to trust their mom | BUT | Other kids are not sure if they can trust their mom. |
| | Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 27. | Some kids worry that their mom does not really love them | BUT | Other kids are <u>really</u> sure that their mom loves them. |
| | Very true for me Sort of true for me | | Sort of true for me Very true for me |
| 28. | Some kids find it easy to count on their mom for help | BUT | Other kids think it's hard to count on their mom for help. |
| | Very true for me Sort of true for me | | Sort of true for me Very true for me |

Preoccupied: 1, 5, 6*, 7*, 9, 12*, 15*, 17*, 19, 20*
Avoidant: 2*, 3, 4*, 8, 10*, 11, 13, 14, 16, 18*
Reliable support: 21, 22*, 23, 24*, 25, 26*, 27, 28*
*reverse-scored

Appendix A10 (Study 2)

“About My Mother”

- | | | | |
|----|--|------------------------|---|
| 1. | Some mothers get mad easily over little things | BUT | Other mothers don't get mad easily over little things. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 2. | Some kids don't go out and do fun things with their mother | BUT | Other kids do go out and do fun things with their mother. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 3. | Some mothers would be afraid to let their kid spend a weekend away from them | BUT | Other mothers wouldn't be afraid to let their kid spend a weekend away from them. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 4. | Some mothers know where their kid is when the kid is away from home | BUT | Other mothers don't know where their kid is when the kid is away from home. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 5. | Some mothers respect their kid's privacy | BUT | Other mothers do not respect their kid's privacy. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 6. | Some mothers let their kid explore new places | BUT | Other mothers are afraid to let their kid explore new places. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |

- | | | | |
|-----|--|------------------------|--|
| 7. | Some mothers <u>aren't</u> always afraid their kid will get sick | BUT | Other mothers <u>are</u> always afraid their kid will get sick. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 8. | Some kids and their mother care about each other's feelings | BUT | Other kids and their mother <u>don't</u> care about each other's feelings. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 9. | Some mothers use threats to get their kid to behave | BUT | Other mothers <u>don't</u> use threats to get their kid to behave. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 10. | Some mothers let their kid take chances and try new things | BUT | Other mothers <u>don't</u> let their kid take chances and try new things. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 11. | Some mothers don't know what their kids are doing with their free time | BUT | Other mothers do know what their kids are doing with their free time. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 12. | Some mothers aren't always afraid their kid will get hurt | BUT | Some mothers <u>are</u> always afraid their kid will get hurt. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 13. | Some mothers leave their kid alone when their kid wants to be alone | BUT | Other mothers bother their kid when the kid wants to be alone. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |

- | | | | |
|-----|---|------------------------|---|
| 14. | Some mothers baby their kids by not letting them try new things | BUT | Other mothers don't baby their kids and do let them try new things. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 15. | Some kids do lots of fun things with their mother | BUT | Other kids don't do fun things with their mother. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 16. | Some mothers <u>don't</u> worry too much about their kid when they're not with the kid | BUT | Other mothers <u>do</u> worry too much about their kid when they're not with the kid. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 17. | Some mothers are nosy and ask embarrassing personal questions | BUT | Other mothers are not nosy and don't ask embarrassing personal questions. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 18. | Some mothers let their kid try new and exciting things like climbing a tall tree or swimming out farther than usual | BUT | Other mothers <u>don't</u> let their kid try those kinds of new and exciting things. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |
| 19. | Some mothers don't know who their kid's friends are | BUT | Other mothers do know who their kid's friends are. |
| | Very true
for me | Sort of
true for me | Sort of
true for me |
| | | | Very true
for me |

20. When visiting new places (like a new mall)

Some mothers worry that their kid might get lost

Very true for me Sort of true for me

BUT

Other mothers don't worry that their kid might get lost.

Sort of true for me Very true for me

21. Some mothers don't yell at their kid and put them down a lot

Very true for me Sort of true for me

BUT

Other mothers do yell at their kid and put them down a lot.

Sort of true for me Very true for me

22. Some mothers know where their kid is after school

Very true for me Sort of true for me

BUT

Other mothers don't know where their kid is after school.

Sort of true for me Very true for me

23. Some kids and their mother really enjoy each other's company

Very true for me Sort of true for me

BUT

Other kids and their mothers don't enjoy each other's company.

Sort of true for me Very true for me

24. Some mothers don't let their kid try exciting new things that older kids are allowed to do

Very true for me Sort of true for me

BUT

Some mothers do let their kid try exciting new things that older kids are allowed to do.

Sort of true for me Very true for me

25. Some mothers come into their kid's room when the kid doesn't want them to

Very true for me Sort of true for me

BUT

Other mothers don't come into their kid's room unless the kid wants them to.

Sort of true for me Very true for me

26. Some mothers think lots of things are too dangerous for their kid to do
- Very true Sort of
for me true for me
- BUT**
- Other mothers don't think lots of things are too dangerous for their kid to do.
- Sort of Very true
true for me for me
27. Some mothers don't know what their kid is doing when out with a friend
- Very true Sort of
for me true for me
- BUT**
- Other mothers do know what their kid is doing when out with a friend.
- Sort of Very true
true for me for me
28. Some kids don't enjoy doing things with their mother
- Very true Sort of
for me true for me
- BUT**
- Other kids do enjoy doing things with their mother.
- Sort of Very true
true for me for me
29. Some mothers don't butt into their kid's business
- Very true Sort of
for me true for me
- BUT**
- Other mothers are always butting into their kid's business.
- Sort of Very true
true for me for me
30. You go camping with your family, and at the campground you meet some kids your age.
- Some mothers wouldn't want their kid to go off alone with their new friends to explore the campground
- Very true Sort of
for me true for me
- BUT**
- Other mothers would let their kid go off to explore with their new friends.
- Sort of Very true
true for me for me
31. Some mothers always know how to get in touch with their kid when the kid is away from home
- Very true Sort of
for me true for me
- BUT**
- Other mothers don't always know how to get in touch with their kid when the kid is away from home.
- Sort of Very true
true for me for me

32.	Some kids don't get along with their mother	BUT	Other kids do get along well with their mother.
	Very true for me		Sort of true for me
			Sort of true for me
			Very true for me

Key: Harassment: 1*, 5, 9*, 13, 17*, 21, 25*, 29
 Affectionate contact: 2, 8*, 15*, 23*, 28, 32
 Overprotectiveness: 3*, 6, 7, 10, 12, 14*, 16, 18, 20*, 24*, 26*, 30*
 Monitoring: 4*, 11, 19, 22*, 27, 31*
 *reverse-scored

Table 1

Means and Standard Deviations of Measures by Participant Age and Sex (Study 1)

Measure	Boys				Girls			
	Younger (n = 61)		Older (n = 31)		Younger (n = 59)		Older (n = 38)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Self-esteem (Time 1)	3.46	.55	3.45	.43	3.41	.51	3.28	.56
Aggression (Time 1)	44.30	37.61	80.46	35.52	27.55	33.98	49.68	47.65
Expectation of reward (Time 1)	2.65	.55	2.69	.54	2.32	.44	2.56	.42
Expectation of victim suffering (Time 1)	2.83	.52	2.58	.49	2.89	.41	2.48	.45
Value of reward (Time 1)	2.18	.60	2.16	.70	1.96	.61	1.86	.60
Value of victim suffering (Time 1)	2.80	.70	2.81	.76	2.16	.58	2.25	.65
Self-efficacy for aggression (Time 1)	3.11	.73	3.30	.59	2.48	.77	2.58	.68
Aggression (Time 2)	61.06	37.06	85.74	44.43	31.87	35.51	52.68	46.08
Expectation of reward (Time 2)	2.77	.49	2.70	.51	2.29	.57	2.54	.42
Expectation of victim suffering (Time 2)	2.84	.60	2.52	.65	2.79	.53	2.67	.38
Value of reward (Time 2)	1.94	.56	2.14	.70	1.76	.67	1.95	.62
Value of victim suffering (Time 2)	2.71	.72	2.93	.69	2.31	.68	2.04	.64
Self-efficacy for aggression (Time 2)	3.17	.67	3.28	.57	2.62	.80	2.54	.71

Note: Younger children were in third through fifth grades; older children were in sixth and seventh grades.

Table 2

Sex and Age Differences in the Measures (Study 1)

Measure	Sex difference	Age difference
Self-esteem (Time 1)	.10	.04
Aggression (Time 1)	.29***	.32***
Expectation of reward (Time 1)	.27***	.16*
Expectation of victim suffering (Time 1)	.01	-.23**
Value of reward (Time 1)	.18*	-.01
Value of victim suffering (Time 1)	.41***	.08
Self-efficacy for aggression (Time 1)	.41***	.05
Aggression (Time 2)	.35***	.18*
Expectation of reward (Time 2)	.33***	.08
Expectation of victim suffering (Time 2)	-.02	-.11
Value of reward (Time 2)	.15*	.12
Value of victim suffering (Time 2)	.39***	-.02
Self-efficacy for aggression (Time 2)	.40***	-.03

Note: Table entries are standardized betas from regression analyses in which the measure was treated as the dependent variable with age and sex entered simultaneously on the first step. Sex was dummy coded with girls = 0 and boys = 1. Age was coded as “younger” and “older” with children in the third, fourth and fifth grades combined to form a “younger” group, and children in the sixth and seventh grades combined to form an “older” group.

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

Table 3

Correlations Among the Measures of Study 1

Measure	Measure												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Self-esteem (Time 1)	1.00	.12	-.05	.20*	-.10	-.08	.05	.00	.02	.17*	-.10	-.03	-.03
2. Aggression (Time 1)		1.00	.11	.05	.15	.06	.14	.75**	.08	.13	.20**	.12	.11
3. Expectation for reward (Time 1)			1.00	.25**	.46**	.44**	.41**	.13	.42**	.35**	.17*	.16*	.28**
4. Expectation for victim suffering (Time 1)				1.00	.25**	.13	.10	.04	.09	.34**	-.05	.08	.03
5. Value of reward (Time 1)					1.00	.34**	.25**	.18*	.29**	.27**	.37**	.25**	.21**
6. Value of victim suffering (Time 1)						1.00	.44**	.11	.17*	.08	.10	.49**	.31**
7. Self-efficacy for aggression (Time 1)							1.00	.14	.38**	.10	.20*	.34**	.60**
8. Aggression (Time 2)								1.00	.09	.02	.15*	.10	.18*
9. Expectation for reward (Time 2)									1.00	.23**	.28**	.28**	.47**
10. Expectation for victim suffering (Time 2)										1.00	.04	.07	-.02
11. Value of reward (Time 2)											1.00	.18*	.22**
12. Value of victim suffering (Time 2)												1.00	.53**
13. Self-efficacy for aggression (Time 2)													1.00

Note. Table entries are for the entire sample of Study 1 (N = 189) and are partial correlations controlling for age and sex.

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

Table 4
Standardized Beta for Multiple Regression Models Disposition-Activating Hypothesis (Study 1)

Table 4a

IV: Cognition (Self-Efficacy for Aggression) DV: Aggression T2	MODEL				
	1	2	3	4	5
Age	-.06	-.06	-.06		
Sex	.14**	.14**	.14**		
Aggression T1	.76**	.76**	.76**		
Self-esteem T1		-.10*	-.10*		
Cognition T1		.04	.04		
Self-esteem x Cognition			.02		
R ²	.63	.64	.64		
ΔR ²		.01	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				.07	.07
Cognition x Sex				-.06	-.06
Self-esteem x Cognition x Sex					.01
R ²				.65	.65
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x Age				-.02	-.03
Cognition x Age				-.02	-.02
Self-esteem x Cognition x Age					-.08
R ²				.64	.65
ΔR ²				.00	.01

Note: Model 1 controlled for age, sex, and aggression at time 1; Model 2 added self-esteem and social cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses added the sex and age interactions. Model 4 added the self-esteem x sex/age and cognition x sex/age interaction; Model 5 added the self-esteem x cognition x sex/age interaction. Dependent variable was time 2 aggression.

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

Table 4b

IV: Cognition (Outcome Expectancy Reward) DV: Aggression T2	MODEL				
	1	2	3	4	5
Age	-.06	-.06	-.06		
Sex	.14**	.14**	.14**		
Aggression T1	.76**	.76**	.76**		
Self-esteem T1		-.09*	-.09*		
Cognition T1		.04	.03		
Self-esteem x Cognition			.09		
R ²	.63	.64	.65		
ΔR ²		.01	.01		
Supplementary Analyses (a)					
Self-esteem x Sex				.06	.06
Cognition x Sex				.03	.03
Self-esteem x Cognition x Sex					-.03
R ²				.65	.65
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x Age				-.04	-.04
Cognition x Age				-.01	-.01
Self-esteem x Cognition x Age					-.03
R ²				.65	.65
ΔR ²				.00	.00

Note: Model 1 controlled for age, sex, and aggression at time 1; Model 2 added self-esteem and social cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses added the sex and age interactions. Model 4 added the self-esteem x sex/age and cognition x sex/age interaction; Model 5 added the self-esteem x cognition x sex/age interaction. Dependent variable was time 2 aggression.

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

Table 4c

IV: Cognition (Outcome Value for Reward)	MODEL				
DV: Aggression T2	1	2	3	4	5
Age	-.06	-.06	-.06		
Sex	.14**	.14**	.14**		
Aggression T1	.76**	.76**	.76**		
Self-esteem T1		-.09+	-.09+		
Cognition T1		.06	.06		
Self-esteem x Cognition			-.02		
R ²	.63	.64	.64		
ΔR ²		.01+	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				.08	.09
Cognition x Sex				.00	.00
Self-esteem x Cognition x Sex					.06
R ²				.65	.00
ΔR ²				.65	.00
Supplementary Analyses (b)					
Self-esteem x Age				-.02	-.02
Cognition x Age				-.02	-.02
Self-esteem x Cognition x Age					.01
R ²				.64	.64
ΔR ²				.00	.00

Note: Model 1 controlled for age, sex, and aggression at time 1; Model 2 added self-esteem and social cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses added the sex and age interactions. Model 4 added the self-esteem x sex/age and cognition x sex/age interaction; Model 5 added the self-esteem x cognition x sex/age interaction. Dependent variable was time 2 aggression.

+p <.06. *p <.05. **p <.01.

Table 4d

IV: Cognition (Outcome Expectancy Victim Suffering)	MODEL				
DV: Aggression T2	1	2	3	4	5
Age	-.06	-.06	-.06		
Sex	.14**	.14**	.14**		
Aggression T1	.76**	.76**	.76**		
Self-esteem T1		-.10*	-.10*		
Cognition T1		.03	.03		
Self-esteem x Cognition			.03		
R ²	.63	.64	.64		
ΔR ²		.01	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				.07	.07
Cognition x Sex				.05	.05
Self-esteem x Cognition x Sex					.03
R ²				.64	.64
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x Age				-.01	.01
Cognition x Age				-.02	-.02
Self-esteem x Cognition x Age					.07
R ²				.64	.64
ΔR ²				.00	.00

Note: Model 1 controlled for age, sex, and aggression at time 1; Model 2 added self-esteem and social cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses added the sex and age interactions. Model 4 added the self-esteem x sex/age and cognition x sex/age interaction; Model 5 added the self-esteem x cognition x sex/age interaction. Dependent variable was time 2 aggression.

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

Table 4e

IV: Cognition (Outcome Value for Victim Suffering)	MODEL				
DV: Aggression T2	1	2	3	4	5
Age	-.06	-.06	-.06		
Sex	.14**	.14**	.14**		
Aggression T1	.76**	.76**	.76**		
Self-esteem T1		-.09	-.09		
Cognition T1		.06	.06		
Self-esteem x Cognition			.01		
R ²	.63	.64	.64		
ΔR ²		.01	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				.07	.07
Cognition x Sex				-.11	-.11
Self-esteem x Cognition x Sex					-.01
R ²				.65	.65
ΔR ²				.01	.00
Supplementary Analyses (b)					
Self-esteem x Age				-.03	-.03
Cognition x Age				.05	.05
Self-esteem x Cognition x Age					-.04
R ²				.65	.65
ΔR ²				.00	.00

Note: Model 1 controlled for age, sex, and aggression at time 1; Model 2 added self-esteem and social cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses added the sex and age interactions. Model 4 added the self-esteem x sex/age and cognition x sex/age interaction; Model 5 added the self-esteem x cognition x sex/age interaction. Dependent variable was time 2 aggression.

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

Table 5

Standardized Beta Coefficients for Multiple Regression Models for Disposition rationalizing Hypothesis (Study 1)

Table 5a

IV: Aggression	MODEL				
DV: Cognition (Self-Efficacy for Aggression T2)	1	2	3	4	5
Age	-.07	-.08	-.07		
Sex	.15*	.15*	.15*		
Cognition T1	.60**	.60**	.60**		
Self-esteem T1		-.05	-.04		
Aggression T1		.05	.03		
Self-esteem x Aggression			.18*		
R ²	.45	.46	.47		
ΔR ²		.00	.01*		
Supplementary Analyses (a)					
Self-esteem x Sex				-.07	-.07
Aggression x Sex				.02	.02
Self-esteem x Aggression x Sex					-.04
R ²				.49	.49
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x Age				.02	.03
Aggression x Age				.05	.06
Self-esteem x Aggression x Age					.07
R ²				.49	.49
ΔR ²				.00	.01

Note: Model 1 controlled for age, sex, and cognition at time 1; Model 2 added self-esteem and aggression measure; Model 3 added the self-esteem x aggression interactions. Supplementary analyses included sex/age interactions. Model 4 added the self-esteem x sex/age and aggression x sex/age interactions; Model 5 added the self-esteem x aggression x sex/age interaction. Dependent variables were time 2 cognitions.

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

Table 5b

IV: Aggression	MODEL				
DV: Cognition (Outcome Expectancy Reward T2)	1	2	3	4	5
Age	.00	.00	.00		
Sex	.22**	.21**	.22**		
Cognition T1	.41**	.41**	.41**		
Self-esteem T1		.03	.06		
Aggression T1		.03	-.01		
Self-esteem x Aggression			.19**		
R ²	.27	.27	.30		
ΔR ²		.00	.04**		
Supplementary Analyses (a)					
Self-esteem x Sex				.05	.06
Aggression x Sex				.01	.00
Self-esteem x Aggression x Sex					.07
R ²				.30	.31
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x Age				.03	.03
Aggression x Age				.06	.06
Self-esteem x Aggression x Age					-.04
R ²				.31	.31
ΔR ²				.00	.00

Note: Model 1 controlled for age, sex, and cognition at time 1; Model 2 added self-esteem and aggression measure; Model 3 added the self-esteem x aggression interactions. Supplementary analyses included sex/age interactions. Model 4 added the self-esteem x sex/age and aggression x sex/age interactions; Model 5 added the self-esteem x aggression x sex/age interaction. Dependent variables were time 2 cognitions.

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

Table 5c

IV: Aggression DV: Cognition (Outcome Value for Reward T2)	MODEL				
	1	2	3	4	5
Age	.13	.07	.08		
Sex	.09	.06	.06		
Cognition T1	.37**	.34**	.33**		
Self-esteem T1		-.07	-.05		
Aggression T1		.18*	.15*		
Self-esteem x Aggression			.16*		
R ²	.17	.20	.22		
ΔR ²		.03+	.03*		
Supplementary Analyses (a)					
Self-esteem x Sex				.10	.10
Aggression x Sex				.05	.05
Self-esteem x Aggression x Sex					-.02
R ²				.23	.23
ΔR ²				.01	.00
Supplementary Analyses (b)					
Self-esteem x Age				.11	.10
Aggression x Age				.14*	.14
Self-esteem x Aggression x Age					-.07
R ²				.26	.26
ΔR ²				.03	.01

Note: Model 1 controlled for age, sex, and cognition at time 1; Model 2 added self-esteem and aggression measure; Model 3 added the self-esteem x aggression interactions. Supplementary analyses included sex/age interactions. Model 4 added the self-esteem x sex/age and aggression x sex/age interactions; Model 5 added the self-esteem x aggression x sex/age interaction. Dependent variables were time 2 cognitions.

+p < .06. *p < .05. **p < .01.

Table 5d

IV: Aggression DV: Cognition (Outcome Expectancy Victim SufferingT2)	MODEL				
	1	2	3	4	5
Age	-.05	-.09	-.08		
Sex	-.02	-.07	-.06		
Cognition T1	.36**	.33**	.32**		
Self-esteem T1		.10	.11		
Aggression T1		.11	.10		
Self-esteem x Aggression			.05		
R ²	.13	.15	.16		
ΔR ²		.02	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				.05	.06
Aggression x Sex				-.09	-.10
Self-esteem x Aggression x Sex					.10
R ²				.16	.17
ΔR ²				.01	.01
Supplementary Analyses (b)					
Self-esteem x Age				-.08	-.07
Aggression x Age				-.03	-.03
Self-esteem x Aggression x Age					.03
R ²				.16	.16
ΔR ²				.01	.00

Note: Model 1 controlled for age, sex, and cognition at time 1; Model 2 added self-esteem and aggression measure; Model 3 added the self-esteem x aggression interactions. Supplementary analyses included sex/age interactions. Model 4 added the self-esteem x sex/age and aggression x sex/age interactions; Model 5 added the self-esteem x aggression x sex/age interaction. Dependent variables were time 2 cognitions.

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

Table 5e

IV: Aggression DV: Cognition (Outcome Value for Victim Suffering T2)	MODEL				
	1	2	3	4	5
Age	-.07	-.10	-.09		
Sex	.18**	.16*	.16*		
Cognition T1	.48**	.48**	.48**		
Self-esteem T1		.00	.01		
Aggression T1		.10	.08		
Self-esteem x Aggression			.12+		
R ²	.34	.35	.36		
ΔR ²		.01	.01+		
Supplementary Analyses (a)					
Self-esteem x Sex				.09	.08
Aggression x Sex				.07	.09
Self-esteem x Aggression x Sex					-.12
R ²				.37	.38
ΔR ²				.01	.01
Supplementary Analyses (b)					
Self-esteem x Age				-.03	-.02
Aggression x Age				.04	.04
Self-esteem x Aggression x Age					.04
R ²				.36	.36
ΔR ²				.00	.00

Note: Model 1 controlled for age, sex, and cognition at time 1; Model 2 added self-esteem and aggression measure; Model 3 added the self-esteem x aggression interactions. Supplementary analyses included sex and age interactions. Model 4 added the self-esteem x sex/age and aggression x sex/age interactions; Model 5 added the self-esteem x aggression x sex/age interaction. Dependent variables were time 2 cognitions.

+p < .06. *p < .05. **p < .01.

Table 6
Relation of Time-1 Aggression to Time-2 Cognition as a Function of Time-1 Self-Esteem (Study 1)

Time 2 Cognition	Time 1 Self-esteem		
	Low (-1 SD)	Medium (0 SD)	High (+ 1 SD)
Expectation of reward	-.20+	-.01	.19 *
Value of reward	-.02	.15*	.33 ***
Value of victim suffering	-.04	.08	.20 *
Self-efficacy for aggression	-.10	.02	.15+

Note: Table entries are standardized beta coefficients from the Aiken and West (1991) procedure. Within each row, there is significant variability among the betas. + $p < .06$. * $p < .05$. *** $p < .001$.

Table 7
Relation of Time-1 Self-Esteem to Time-2 Cognition as a Function of Time-1 Aggression (Study 1)

Time-2 cognition	Time-1 aggression		
	Low (-1 SD)	Medium (0 SD)	High (+ 1 SD)
Expectation of reward	-.14	.06	.25*
Value of reward	-.22*	-.05	.13
Value of victim suffering	-.11	.01	.14
Self-efficacy for aggression	-.16*	-.04	.09

Note: Table entries are standardized beta coefficients from the Aiken and West (1991) procedure. Within each row, there is significant variability among the betas. * $p < .05$.

Table 8

*Means and Standard Deviations of Measures by Participant Sex and Ethnicity/Race**(Study2)*

<i>Measure</i>		OVERALL	BOYS			GIRLS		
			White	Black	Hispanic	White	Black	Hispanic
Self-esteem (T1)	<i>M</i>	3.21	3.25	3.13	3.10	3.33	3.19	3.08
	<i>SD</i>	.62	.59	.57	.72	.58	.64	.65
Avoidance (T1)	<i>M</i>	1.56	1.62	1.78	1.65	1.44	1.51	1.45
	<i>SD</i>	.54	.54	.66	.55	.45	.57	.42
Preoccupation (T1)	<i>M</i>	2.76	2.58	2.64	2.65	2.82	3.00	2.93
	<i>SD</i>	.67	.64	.66	.61	.74	.60	.53
Reliable support (T1)	<i>M</i>	3.24	3.26	3.21	3.11	3.35	3.20	3.11
	<i>SD</i>	.59	.55	.70	.56	.55	.64	.57
Overprotective (T1)	<i>M</i>	2.45	2.31	2.42	2.66	2.31	2.55	2.81
	<i>SD</i>	.64	.68	.73	.58	.55	.57	.63
Harassment (T1)	<i>M</i>	1.86	1.84	1.90	1.94	1.77	2.02	1.76
	<i>SD</i>	.62	.66	.67	.63	.51	.70	.56
Affectionate contact (T1)	<i>M</i>	3.48	3.45	3.40	3.29	3.60	3.50	3.47
	<i>SD</i>	.56	.53	.61	.56	.45	.70	.61
Monitoring (T1)	<i>M</i>	3.21	3.21	3.24	2.91	3.34	3.26	3.10
	<i>SD</i>	.62	.62	.61	.61	.54	.64	.68
Avoidance (T2)	<i>M</i>	1.59	1.72	1.73	1.62	1.43	1.50	1.60
	<i>SD</i>	.59	.67	.65	.46	.50	.54	.60
Preoccupation (T2)	<i>M</i>	2.51	2.31	2.33	2.43	2.69	2.65	2.63
	<i>SD</i>	.67	.69	.63	.57	.65	.68	.69
Reliable support (T2)	<i>M</i>	3.29	3.35	3.29	3.27	3.35	3.27	3.08
	<i>SD</i>	.62	.54	.63	.58	.57	.76	.71
Overprotective (T2)	<i>M</i>	2.22	2.08	2.24	2.35	2.08	2.40	2.48
	<i>SD</i>	.57	.50	.58	.60	.54	.63	.49
Harassment (T2)	<i>M</i>	1.92	1.90	1.97	1.93	1.88	1.93	1.97
	<i>SD</i>	.63	.65	.62	.55	.59	.74	.67
Affectionate contact (T2)	<i>M</i>	3.50	3.50	3.46	3.45	3.59	3.54	3.34
	<i>SD</i>	.60	.60	.68	.61	.47	.63	.67
Monitoring (T2)	<i>M</i>	3.35	3.24	3.27	3.20	3.48	3.49	3.36
	<i>SD</i>	.60	.66	.62	.60	.55	.54	.56

Table 9

Correlations Among the Measures of Study 2

Measure	Measure														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Self-esteem (Time 1)	1.00	-.26**	.04	.32**	-.14**	-.25**	.33**	.34**	-.09	.02	.23**	-.08	-.18**	.21**	.23**
2. Avoidance (Time 1)		1.00	-.51	-.49**	-.14**	.32**	-.50**	-.38**	.45**	-.27**	-.31**	.02	.26**	-.38**	-.35**
3. Preoccupation (Time 1)			1.00	.15**	.38**	-.02	.20**	.10	-.28**	.51**	.14**	.21**	-.12*	.16**	.18**
4. Reliable support (Time 1)				1.00	-.07	-.51**	.62**	.39**	-.26**	.07	.41**	-.12*	-.31**	.38**	.31**
5. Overprotectiveness (Time 1)					1.00	.22**	-.18**	-.11*	-.06	.25**	.04	.46**	.06	.03	-.04
6. Harassment (Time 1)						1.00	-.54**	-.36**	.19**	-.03	-.31**	.28**	.41**	-.33**	-.24**
7. Affectionate contact (Time 1)							1.00	.35**	-.29**	.13**	.38**	-.19**	-.33**	.43**	.30**
8. Monitoring (Time 1)								1.00	-.24**	.08	.30**	-.06	-.24**	.29**	.51**
9. Avoidance (Time 2)									1.00	-.51**	-.57**	-.01	.51**	-.65**	-.52**
10. Preoccupation (Time 2)										1.00	.18**	.34**	-.24**	.28**	.23**
11. Reliable support (Time 2)											1.00	-.15**	-.58**	.65**	.50**
12. Overprotectiveness (Time 2)												1.00	.29**	-.16**	-.08
13. Harassment (Time 2)													1.00	-.55**	-.47**
14. Affectionate contact (Time 2)														1.00	.47**
15. Monitoring (Time 2)															1.00

Note. Table entries are for the entire sample of Study 2 (N = 407) and are partial correlations controlling for sex, cohort, and ethnicity/race.

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

Table 10
Standardized Beta Coefficients for Multiple Regression Models for Disposition Activating Hypothesis: does high self-esteem energize avoidance by children who perceive their mother negatively? (Study 2)

Table 10a

IV: Cognition (Harassment) DV: Avoidance T2	MODEL				
	1	2	3	4	5
Cohort	.04	.05	.04		
White	-.02	-.02	-.03		
Black	-.02	-.03	-.03		
Sex	.09*	.09*	.09*		
Avoidance T1	.46***	.45**	.45**		
Self-esteem T1		.03	.04		
Cognition T1		.06	.05		
Self-esteem x Cognition			-.03		
R ²	.24	.24	.24		
ΔR ²		.00	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				-.13*	-.12
Cognition x Sex				-.10	-.12
Self-esteem x Cognition x Sex					-.15*
R ²				.25	.26
ΔR ²				.01	.01*
Supplementary Analyses (b)					
Self-esteem x White				-.15+	-.15+
Cognition x White				-.12	-.13
Self-esteem x Black				.01	.00
Cognition x Black				.00	.01
Self-esteem x Cognition x White					-.07
Self-esteem x Cognition x Black					.01
R ²				.26	.26
ΔR ²				.02	.00
Supplementary Analyses (c)					
Self-esteem x Cohort				-.06	-.06
Cognition x Cohort				-.11+	-.12*
Self-esteem x Cognition x Cohort					-.43
R ²				.25	.01
ΔR ²				.25	.00

Note: Model 1 controlled for cohort, black, white, sex, and avoidance at time 1; Model 2 added self-esteem and cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and cognition x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x cognition x sex/ethnicity/cohort interaction. Dependent variable was time 2 avoidance. (.15* was not significant when interaction was run separately for each sex.)

+p <.06. *p <.05. **p <.01.

Table 10b

IV: Cognition (Monitoring)	MODEL				
DV: Avoidance T2	1	2	3	4	5
Cohort	.04	.05	.04		
White	-.02	-.01	-.01		
Black	-.02	-.01	-.01		
Sex	.09*	.09*	.09*		
Avoidance T1	.46***	.43***	.44***		
Self-esteem T1		.05	.04		
Cognition T1		-.09	-.09		
Self-esteem x Cognition			-.05		
R ²	.24	.24	.25		
ΔR ²		.01	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				-.12	-.09
Cognition x Sex				.03	.04
Self-esteem x Cognition x Sex					.18**
R ²				.25	.26
ΔR ²				.01	.01*
Supplementary Analyses (b)					
Self-esteem x White				-.16*	-.13
Cognition x White				.13	.16+
Self-esteem x Black				-.04	-.02
Cognition x Black				.12	.14*
Self-esteem x Cognition x White					.17*
Self-esteem x Cognition x Black					.06
R ²				.24	.24
ΔR ²				.01	.01
Supplementary Analyses (d)					
Self-esteem x Cohort				-.02	-.02
Cognition x Cohort				-.01	-.01
Self-esteem x Cognition x Cohort					-.02
R ²				.25	.25
ΔR ²				.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and avoidance at time 1; Model 2 added self-esteem and cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and cognition x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x cognition x sex/ethnicity/cohort interaction. Dependent variable was time 2 avoidance.

+p < .06. *p < .05. **p < .01.

Table 10c

IV: Cognition (Overprotective) DV: Avoidance T2	MODEL				
	1	2	3	4	5
Cohort	.04	.03	.03		
White	-.02	-.02	-.02		
Black	-.02	-.02	-.03		
Sex	.09*	.09*	.09*		
Avoidance T1	.46***	.46***	.46***		
Self-esteem T1		.03	.02		
Cognition T1		.01	.01		
Self-esteem x Cognition			.01		
R ²	.24	.24	.24		
ΔR ²		.00	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				-.11	-.10
Cognition x Sex				-.01	-.01
Self-esteem x Cognition x Sex					-.05
R ²				.22	.22
ΔR ²				.01	.00
Supplementary Analyses (b)					
Self-esteem x White				-.15	-.12
Cognition x White				-.08	-.10
Self-esteem x Black				-.02	.01
Cognition x Black				.01	-.01
Self-esteem x Cognition x White					-.05
Self-esteem x Cognition x Black					-.09
R ²				.25	.25
ΔR ²				.01	.00
Supplementary Analyses (c)					
Self-esteem x Cohort				-.02	-.02
Cognition x Cohort				.02	.02
Self-esteem x Cognition x Cohort					.00
R ²				.24	.24
ΔR ²				.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and avoidance at time 1; Model 2 added self-esteem and cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and cognition x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x cognition x sex/ethnicity/cohort interaction. Dependent variable was time 2 avoidance.

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

Table 10d

IV: Cognition (Reliable Support)	MODEL				
DV: Avoidance T2	1	2	3	4	5
Cohort	.04	.05	.04		
White	-.02	-.02	-.02		
Black	-.02	-.03	-.03		
Sex	.09*	.09*	.09*		
Avoidance T1	.46***	.45***	.45***		
Self-esteem T1		.03	.03		
Cognition T1		.06	.06		
Self-esteem x Cognition			-.04		
R ²	.24	.24	.24		
ΔR ²		.00	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				-.10	-.09
Cognition x Sex				-.02	-.02
Self-esteem x Cognition x Sex					.09
R ²				.25	.25
ΔR ²				.01	.00
Supplementary Analyses (b)					
Self-esteem x White				-.12	-.12
Cognition x White				-.01	-.01
Self-esteem x Black				.01	-.01
Cognition x Black				-.05	-.07
Self-esteem x Cognition x White					.02
Self-esteem x Cognition x Black					-.10
R ²				.25	.26
ΔR ²				.01	.01
Supplementary Analyses (c)					
Self-esteem x Cohort				-.03	-.03
Cognition x Cohort				.01	.01
Self-esteem x Cognition x Cohort					.01
R ²				.24	.24
ΔR ²				.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and avoidance at time 1; Model 2 added self-esteem and cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and cognition x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x cognition x sex/ethnicity/cohort interaction. Dependent variable was time 2 avoidance.

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

Table 10e

IV: Cognition (Aff. Contact)	MODEL				
DV: Avoidance T2	1	2	3	4	5
Cohort	.04	.04	.04		
White	-.02	-.01	-.01		
Black	-.02	-.02	-.01		
Sex	.09*	.09*	.09+		
Avoidance T1	.46***	.42***	.41***		
Self-esteem T1		.05	.04		
Cognition T1		-.10+	-.12*		
Self-esteem x Cognition			-.05		
R ²	.24	.24	.25		
ΔR ²		.01	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				-.12	-.11
Cognition x Sex				-.01	.02
Self-esteem x Cognition x Sex					.11+
R ²				.25	.26
ΔR ²				.01	.01+
Supplementary Analyses (b)					
Self-esteem x White				-.13	-.13
Cognition x White				.01	.00
Self-esteem x Black				.02	.01
Cognition x Black				-.04	-.07
Self-esteem x Cognition x White					.00
Self-esteem x Cognition x Black					-.10
R ²				.26	.26
ΔR ²				.01	.01
Supplementary Analyses (c)					
Self-esteem x Cohort				-.02	-.02
Cognition x Cohort				-.01	-.01
Self-esteem x Cognition x Cohort					-.02
R ²				.25	.25
ΔR ²				.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and avoidance at time 1; Model 2 added self-esteem and cognition measure; Model 3 added the self-esteem x cognition interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and cognition x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x cognition x sex/ethnicity/cohort interaction. Dependent variable was time 2 avoidance.

+p < .06. *p < .05. ***p < .01.

Table 11

Standardized Beta Coefficients for Multiple Regression Models for Disposition Rationalizing Hypothesis: does high self-esteem lead avoidant children to view their mother negatively? (Study 2)

Table 11a

IV: Avoidance DV: Cognition (Harassment T2)	MODEL				
	1	2	3	4	5
Cohort	.05	.04	.04		
White	-.01	.00	-.01		
Black	-.01	-.02	-.03		
Sex	.00	-.03	-.03		
Cognition T1	.42***	.36***	.36***		
Self-esteem T1		-.06	-.07		
Avoidance T1		.14**	.16**		
Self-esteem x Avoidance			.12**		
R ²	.17	.19	.21		
ΔR ²		.02**	.01**		
Supplementary Analyses (a)					
Self-esteem x Sex				.00	.01
Avoidance x Sex				.07	.06
Self-esteem x Avoidance x Sex					-.05
R ²				.21	.21
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x White				-.06	-.06
Avoidance x White				.11	.14
Self-esteem x Black				-.06	-.06
Avoidance x Black				.13	.16
Self-esteem x Avoidance x White					.06
Self-esteem x Avoidance x Black					.05
R ²				.22	.22
ΔR ²				.01	.00
Supplementary Analyses (c)					
Self-esteem x Cohort				.00	.01
Avoidance x Cohort				-.01	-.02
Self-esteem x Avoidance x Cohort					-.05
R ²				.21	.21
ΔR ²				.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and cognition at time 1; Model 2 added self-esteem and avoidance measure; Model 3 added the self-esteem x avoidance interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and avoidance x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x avoidance x sex/ethnicity/cohort interaction. Dependent variable was time 2 parenting cognition.

** $p < .01$. *** $p < .001$

Table 11b

IV: Avoidance	MODEL				
DV: Cognition (Monitoring T2)	1	2	3	4	5
Cohort	-.10*	-.09*	-.09*		
White	-.04	-.04	-.03		
Black	-.02	.01	.02		
Sex	-.13**	-.10*	-.10*		
Cognition T1	.51***	.43***	.43***		
Self-esteem T1		.04	.05		
Avoidance T1		-.18***	-.21***		
Self-esteem x Avoidance			-.13***		
R ²	.29	.32	.34		
ΔR ²		.03***	.02***		
Supplementary Analyses (a)					
Self-esteem x Sex				.08	.09
Avoidance x Sex				-.01	-.02
Self-esteem x Avoidance x Sex					-.06
R ²				.34	.34
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x White				-.05	-.05
Avoidance x White				-.13	-.19*
Self-esteem x Black				-.02	-.04
Avoidance x Black				-.05	-.10
Self-esteem x Avoidance x White					-.15
Self-esteem x Avoidance x Black					-.02
R ²				.34	.35
ΔR ²				.00	.01+
Supplementary Analyses (c)					
Self-esteem x Cohort				.07	.08
Avoidance x Cohort				.04	.04
Self-esteem x Avoidance x Cohort					-.03
R ²				.34	.34
ΔR ²				.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and cognition at time 1; Model 2 added self-esteem and avoidance measure; Model 3 added the self-esteem x avoidance interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and avoidance x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x avoidance x sex/ethnicity/cohort interaction. Dependent variable was time 2 parenting cognition.

+p <.06. *p <.05. **p <.01.

Table 11c

IV: Avoidance DV: Cognition (OverprotectiveT2)	MODEL				
	1	2	3	4	5
Cohort	-.20***	-.21***	-.21***		
White	-.16**	-.15**	-.15**		
Black	-.02	-.02	-.02		
Sex	-.02	-.04	-.04		
Cognition T1	.46	.47***	.47***		
Self-esteem T1		.01	.01		
Avoidance T1		.08	.09		
Self-esteem x Avoidance			.01		
R ²	.28	.28	.28		
ΔR ²		.01	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				.04	.05
Avoidance x Sex				.07	.07
Self-esteem x Avoidance x Sex					-.06
R ²				.28	.29
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x White				.10	.11
Avoidance x White				.06	.12
Self-esteem x Black				.02	.03
Avoidance x Black				.12	.18
Self-esteem x Avoidance x White					.11
Self-esteem x Avoidance x Black					.07
R ²				.29	.29
ΔR ²				.01	.00
Supplementary Analyses (c)					
Self-esteem x Cohort				-.06	-.06
Avoidance x Cohort				.08	.08
Self-esteem x Avoidance x Cohort					.03
R ²				.29	.29
ΔR ²				.01	.00

Note: Model 1 controlled for cohort, black, white, sex, and cognition at time 1; Model 2 added self-esteem and avoidance measure; Model 3 added the self-esteem x avoidance interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and avoidance x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x avoidance x sex/ethnicity/cohort interaction. Dependent variable was time 2 parenting cognition.

+p <.06. *p <.05. **p <.01.

Table 11d

IV: Avoidance	MODEL				
DV: Cognition (Rel. Support T2)	1	2	3	4	5
Cohort	-.02	-.02	-.03		
White	.05	.05	.06		
Black	.03	.05	.05		
Sex	.06	.08	.08		
Cognition T1	.42***	.32***	.32***		
Self-esteem T1		.08	.09*		
Avoidance T1		-.13*	-.15**		
Self-esteem x Avoidance			-.08		
R ²	.18	.20	.21		
ΔR ²		.02**	.01		
Supplementary Analyses (a)					
Self-esteem x Sex				.08	.07
Avoidance x Sex				.05	.08
Self-esteem x Avoidance x Sex					.15*
R ²				.21	.23
ΔR ²				.00	.01*
Supplementary Analyses (b)					
Self-esteem x White				.06	.06
Avoidance x White				.02	-.03
Self-esteem x Black				-.01	-.03
Avoidance x Black				-.03	-.06
Self-esteem x Avoidance x White					-.11
Self-esteem x Avoidance x Black					.00
R ²				.21	.22
ΔR ²				.00	.01
Supplementary Analyses (c)					
Self-esteem x Cohort				.07	.05
Avoidance x Cohort				.00	.01
Self-esteem x Avoidance x Cohort					.10
R ²				.21	.22
ΔR ²				.00	.01

Note: Model 1 controlled for cohort, black, white, sex, and cognition at time 1; Model 2 added self-esteem and avoidance measure; Model 3 added the self-esteem x avoidance interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and avoidance x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x avoidance x sex/ethnicity/cohort interaction. Dependent variable was time 2 parenting cognition.

+p <.06. *p <.05. **p <.01.

Table 11e

IV: Avoidance DV: Cognition (Aff. Contact T2)	MODEL				
	1	2	3	4	5
Cohort	-.02	.00	.00		
White	.06	.07	.07		
Black	.05	.07	.07		
Sex	.02	.05	.05		
Cognition T1	.43***	.30***	.30***		
Self-esteem T1		.05	.05		
Avoidance T1		-.23***	-.23***		
Self-esteem x Avoidance			.01		
R ²	.19	.23	.23		
ΔR ²		.04***	.00		
Supplementary Analyses (a)					
Self-esteem x Sex				-.02	-.03
Avoidance x Sex				.07	.08
Self-esteem x Avoidance x Sex					.09
R ²				.23	.24
ΔR ²				.00	.00
Supplementary Analyses (b)					
Self-esteem x White				.17*	.18*
Avoidance x White				.03	.09
Self-esteem x Black				.00	.02
Avoidance x Black				-.10	-.05
Self-esteem x Avoidance x White					.13
Self-esteem x Avoidance x Black					.05
R ²				.25	.26
ΔR ²				.02*	.00
Supplementary Analyses (c)					
Self-esteem x Cohort				-.10	-.11
Avoidance x Cohort				-.07	-.05
Self-esteem x Avoidance x Cohort					.12*
R ²				.24	.25
ΔR ²				.01	.01*

Note: Model 1 controlled for cohort, black, white, sex, and cognition at time 1; Model 2 added self-esteem and avoidance measure; Model 3 added the self-esteem x avoidance interactions. Supplementary analyses included sex, ethnicity and cohort interactions. Model 4 added the self-esteem x sex/ethnicity/cohort and avoidance x sex/ethnicity/cohort interaction. Model 5 added the self-esteem x avoidance x sex/ethnicity/cohort interaction. Dependent variable was time 2 parenting cognition.

+p < .06. *p < .05. **p < .01.

Table 12
Relation of Time-1 Avoidance to Time-2 Perception of Mother as a Function of Time-1 Self-Esteem (Study 2)

Time-2 perception of mother	Time-1 self-esteem		
	Low (-1 <i>SD</i>)	Medium (0 <i>SD</i>)	High (+ 1 <i>SD</i>)
Harassment	.04	.15**	.26***
Monitoring	-.10	-.22**	-.34***
Reliable support (girls only)	.01	-.16*	-.34**

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

Table 13
Relation of Time-1 Self-Esteem to Time-2 Perception of Mother as a Function of Time-1 Avoidance (Study 2)

Time-2 perception of mother	Time-1 avoidance		
	Low (-1 <i>SD</i>)	Medium (0 <i>SD</i>)	High (+ 1 <i>SD</i>)
Harassment	-.18**	-.07	.05
Monitoring	.17**	.05	-.07
Reliable support (girls only)	.19*	.02	-.16

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

Note: Table entries are standardized beta coefficients from the Aiken and West (1991) procedure. Within each row, there is significant variability among the betas.

Table 14

Standardized Beta Coefficients for Multiple Regression Models for Disposition Activating Hypothesis: does high self-esteem energize preoccupation by children who perceive their mother negatively? (Study 2)

Table 14a

IV: Cognition (Harassment) DV: Preoccupied (T2)	MODEL		
	1	2	3
Cohort	.01	.00	.00
White	-.02	-.02	-.02
Black	-.07	-.07	-.07
Sex	-.13**	-.13**	-.13**
Preoccupied T1	.51***	.51***	.51***
Self-esteem T1		-.01	-.01
Cognition T1		-.02	-.01
Self-esteem x Cognition			.03
R ²	.30	.30	.30
ΔR ²		.00	.00

Table 14b

IV: Cognition (Monitoring) DV: Preoccupied (T2)	MODEL		
	1	2	3
Cohort	.01	.00	.00
White	-.02	-.03	-.03
Black	-.07	-.08	-.07
Sex	-.13**	-.13**	-.13**
Preoccupied T1	.51***	.50***	.50***
Self-esteem T1		-.02	-.01
Cognition T1		.04	.04
Self-esteem x Cognition			.02
R ²	.30	.30	.30
ΔR ²		.00	.00

Table 14c

IV: Cognition (Overprotective) DV: Preoccupied (T2)	MODEL		
	1	2	3
Cohort	.01	-.01	.00
White	-.02	.00	.00
Black	-.07	-.06	-.05
Sex	-.13**	-.13**	-.13**
Preoccupied T1	.51***	.48***	.48***
Self-esteem T1		.01	.01
Cognition T1		.06	.06
Self-esteem x Cognition			-.02
R ²	.30	.31	.31
ΔR ²		.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and preoccupation at time 1; Model 2 added self-esteem and cognition measure; Model 3 added the self-esteem x cognition interactions. Dependent variable was time 2 preoccupation.

+p < .06. *p < .05. **p < .01.

Table 14d

IV: Cognition (Reliable Support) DV: Preoccupied (T2)	MODEL		
	1	2	3
Cohort	.01	.00	.00
White	-.02	-.02	-.02
Black	-.07	-.07	-.07
Sex	-.13**	-.13**	-.13**
Preoccupied T1	.51***	.51***	.51***
Self-esteem T1		-.01	-.01
Cognition T1		-.02	-.02
Self-esteem x Cognition			.02
R ²	.30	.30	.30
ΔR ²		.00	.00

Table 14e

IV: Cognition (Aff. Contact) DV: Preoccupied (T2)	MODEL		
	1	2	3
Cohort	.01	.00	.00
White	-.02	-.02	-.02
Black	-.07	-.07	-.07
Sex	-.13**	-.13**	-.13**
Preoccupied T1	.51***	.50***	.50***
Self-esteem T1		-.02	-.02
Cognition T1		.04	.04
Self-esteem x Cognition			.01
R ²	.30	.31	.31
ΔR ²		.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and preoccupation at time 1; Model 2 added self-esteem and cognition measure; Model 3 added the self-esteem x cognition interactions.

Dependent variable was time 2 preoccupation.

+p < .06. *p < .05. **p < .01.

Table 15

Standardized Beta Coefficients for Multiple Regression Models for Disposition Rationalizing Hypothesis: does high self-esteem lead preoccupied children to view their mother negatively? (Study 2)

Table 15a

IV: Preoccupied DV: Cognition (Harassment-T2)	MODEL		
	1	2	3
Cohort	.05	.05	.05
White	-.01	-.01	-.01
Black	-.01	-.01	-.01
Sex	.00	-.03	-.03
Cognition T1	.42***	.40***	.40***
Self-esteem T1		-.08	-.08
Preoccupied T1		-.12*	-.12*
Self-esteem x Preoccupied			.00
R ²	.17	.19	.19
ΔR ²		.02*	.00

Table 15b

IV: Preoccupied DV: Cognition (Monitoring T2)	MODEL		
	1	2	3
Cohort	-.10*	-.10*	-.10*
White	-.04	-.04	-.04
Black	-.02	-.02	-.02
Sex	-.13**	-.10*	-.10*
Cognition T1	.51***	.47***	.48***
Self-esteem T1		.07	.07
Preoccupied T1		.13**	.13**
Self-esteem x Preoccupied			.06
R ²	.29	.31	.32
ΔR ²		.02**	.00

Table 15c

IV: Preoccupied DV: Cognition (OverprotectiveT2)	MODEL		
	1	2	3
Cohort	-.20***	-.19***	-.19***
White	-.16**	-.16**	-.16**
Black	-.02	-.02	-.02
Sex	-.02	-.02	-.02
Cognition T1	.46**	.44***	.44***
Self-esteem T1		-.02	-.02
Preoccupied T1		.05	.05
Self-esteem x Preoccupied			-.04
R ²	.28	.28	.28
ΔR ²		.00	.00

Note: Model 1 controlled for cohort, black, white, sex, and cognition at time 1; Model 2 added self-esteem and preoccupation measure; Model 3 added the self-esteem x preoccupation interactions. Dependent variable was time 2 parenting cognition.

+p <.06. *p <.05. **p <.01.

Table 15d

IV: Preoccupied DV: Cognition (Reliable Sup. T2)	MODEL		
	1	2	3
Cohort	-.02	-.03	-.03
White	.05	.05	.05
Black	.03	.03	.03
Sex	.06	.08	.08
Cognition T1	.42***	.37***	.37***
Self-esteem T1		.10*	.10*
Preoccupied T1		.08	.08
Self-esteem x Preoccupied			.04
R ²	.18	.20	.20
ΔR ²		.02*	.00

Table 15e

IV: Preoccupied DV: Cognition (Aff. Contact T2)	MODEL		
	1	2	3
Cohort	-.02	-.02	-.02
White	.06	.06	.06
Black	.05	.05	.05
Sex	.02	.04	.04
Cognition T1	.43***	.39***	.39***
Self-esteem T1		.08	.08
Preoccupied T1		.08	.08
Self-esteem x Preoccupied			-.01
R ²	.19	.20	.20
ΔR ²		.01	.00

Note: Model 1 controlled for cohort, black, white, sex, and cognition at time 1; Model 2 added self-esteem and preoccupation measure; Model 3 added the self-esteem x preoccupation interactions. Dependent variable was time 2 parenting cognition.

+p < .06. *p < .05. **p < .01.