

What lies beneath: Parenting style and implicit self-esteem ☆

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Abstract

The current studies extend previous research on self-esteem by examining one of the likely origins of implicit self-esteem. Three studies showed that young adult children who reported that their parents were more nurturing reported higher implicit self-esteem compared with those whose parents were less nurturing. Studies 2 and 3 added a measure of overprotectiveness and revealed that children who reported that their parents were overprotective also reported lower implicit self-esteem. Moreover, Study 3 revealed that mothers' independent reports of their early interactions with their children were also related to children's level of implicit self-esteem. In all three studies, these findings remained reliable when we controlled statistically for participants' explicit self-esteem. These findings contribute to a growing body of literature validating the construct of implicit self-esteem.

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Introduction

In the history of research on the self-concept, no topic has been more heavily studied than self-esteem. Presumably this is the case because low self-esteem is a vulnerability that has been linked to susceptibility to mental illness (Bardone, Vohs, Abramson, Heatherton, &

Joiner, 2000; Roberts & Monroe, 1994), relationship dissatisfaction (DeHart, Murray, Pelham, & Rose, 2003; Murray, Holmes, & Griffin, 2000; Swann, Hixon, & De LaRonde, 1992), and even physical illness (Brown & McGill, 1989). However, all of this research has focused on people's explicit (consciously considered and relatively controlled) self-evaluations.

In recent years, however, researchers have begun to suspect that there may be more to self-esteem than meets the eye. Specifically, researchers have begun to focus on people's *implicit* (i.e., unconscious, relatively uncontrolled, and overlearned) self-evaluations (see Greenwald & Banaji, 1995, for a review). Despite the recent interest in implicit self-evaluation, some researchers question the reliability and validity of measures that assess implicit self-esteem (Bosson, Swann, & Pennebaker, 2000). Importantly, Bosson et al. suggested that more studies needed to be conducted to validate the construct of implicit self-esteem.

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Over the past few years, a growing body of literature has focused on the name-letter measure of implicit self-esteem (Baccus, Baldwin, & Packer, 2004; Bosson, Brown, Zeigler-Hill, & Swann, 2003; Dijksterhuis, 2004; Jones, Pelham, Mirenberg, & Hetts, 2002; Koole, Dijksterhuis, & van Knippenberg, 2001; Pelham et al., 2005; Shimizu & Pelham, 2004) which complements previous research on the name-letter effect (Kitayama & Karasawa, 1997; Koole, Smeets, van Knippenberg, & Dijksterhuis, 1999; Nuttin, 1985, 1987). For example, Koole et al. reported that name-letter preferences (i.e., the tendency for people to rate their name-letters more favorably than others rate these letters) demonstrated good temporal stability over a 4-week period (also see Bosson et al., 2000). Koole et al. also provided evidence that name-letter preferences reflect automatic self-evaluations. In addition, Jones et al. (2002) demonstrated that name-letter preferences are predictably related to self-evaluation. After a mild self-concept threat, people high in explicit self-esteem show particularly pronounced name-letter preferences. Moreover, Dijksterhuis (2004) found that subliminally pairing self-related words with positively valenced words enhanced people's name-letter ratings (see also Baccus et al., 2004).

Recent research has also demonstrated that implicit self-esteem predicts important psychological and physical behaviors above that of explicit self-esteem. For example, separate research using the Implicit Association Test (IAT) and the name-letter measures of implicit self-esteem has linked the combination of high explicit and low implicit self-esteem with greater defensiveness and higher levels of narcissism (see Bosson et al., 2003 for name-letter findings and Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003 for IAT findings). In addition, implicit self-esteem has been associated with physical health above and beyond the relation between explicit self-esteem and health (Shimizu & Pelham, 2004). Finally, implicit self-esteem has been found to be a better predictor than explicit self-esteem of people's non-verbal anxiety (Spalding & Hardin, 1999). Because implicit self-esteem has been linked to several outcomes it seems important to determine the likely origins of implicit self-esteem.

In the present research, we examine one potential origin of implicit self-esteem, early childhood experiences with parents. That is, we believe people's early interactions with their parents are associated with their implicit as well as explicit self-esteem. Another goal of the current research is to contribute to a growing body of literature assessing the construct validity of implicit self-esteem. That is, by showing that implicit self-esteem is associated with reports of early experiences that should be associated with positive or negative self-evaluations, we hope to provide evidence that implicit self-esteem is a valid, psychologically meaningful construct.

Development of implicit self-esteem

Like people's explicit self-evaluations, people's implicit self-evaluations are presumably formed through interactions with significant others (e.g., Bartholomew, 1990; Bowlby, 1982; Cooley, 1902; Leary, Tambor, Terdal, & Downs, 1995; Mead, 1934). Theories in the tradition of symbolic interactionism suggest that people develop a sense of self on the basis of how other people treat them (Cooley, 1902; Mead, 1934). In addition, the sociometer theory of self-esteem suggests that people's self-esteem is formed through their interactions with others (Leary et al., 1995). Specifically, individuals with low self-esteem have repeatedly experienced perceived interpersonal rejection. Conversely, most people with high self-esteem have experienced many subjectively successful or non-rejecting interpersonal relationships. It seems reasonable to assume that compared with people high in implicit self-esteem, people low in implicit self-esteem may have experienced repeated interpersonal rejection.

Parents—especially mothers—loom large in the psychological landscapes of most children (e.g., Baumrind, 1971; Bowlby, 1982; Harter, 1993; Parker, Tupling, & Brown, 1979; Pomerantz & Newman, 2000; but cf. Harris, 1995). For example, attachment theorists argue that people develop beliefs about the self on the basis of the responsiveness and sensitivity of their primary caregivers in childhood (e.g., Bartholomew, 1990; Bowlby, 1982). Repeated interpersonal experiences within the family thus form the basis for mental representations of the self in relation to others. Over time, how caretakers respond to infants presumably becomes internalized into working mental models, which are a set of conscious and unconscious beliefs for organizing information about the self in relation to other people.

In keeping with these theoretical perspectives, it seems reasonable that parenting style should be related to both implicit and explicit self-esteem (Baumrind, 1971, 1983). Parents who make use of an *authoritative* parenting style provide their children with love and emotional support, as well as clearly defined rules for what is considered appropriate behavior. In contrast, parents who use an *authoritarian* parenting style adopt a more punitive approach to parenting that more typically involves threats, criticism, and enforcement of unilaterally dictated rules. In addition, parents who adopt an authoritarian strategy do not usually provide the love and emotional support that is characteristic of an authoritative strategy. Finally, parents who use a *permissive* parenting style typically provide inconsistent rule enforcement (or lack of structure). Although permissive parents may be affectionate, their failure to regulate their children's behavior can lead to low self-esteem because children fail to learn appropriate forms of self-regulation (e.g., they may experience social rejection when they

engage in behaviors with others that their parents tolerate or ignore). Thus, according to Baumrind, people who report having had (1) less affectionate or nurturing interactions with their parents or (2) a lack of guidance and structure may have lower implicit as well as explicit self-esteem. Authoritative parenting has consistently been related to greater adolescent adjustment and psychosocial maturity compared with authoritarian and permissive parenting (Steinberg & Morris, 2001).

Another perspective on parenting style posits that care (i.e., nurturance) and overprotectiveness are the two primary parenting dimensions (Parker et al., 1997, 1979). According to this perspective, the dimension of overprotectiveness reflects excessive control, which probably interferes with the child's ability to develop a sense of autonomy or competence (see Gilbert & Silvera, 1996; Ryan & Deci, 2000; for related perspectives). More specifically, overhelping or overprotection may undermine children's ability to take full credit for their accomplishments, which may result in lower self-esteem (see also Parker et al., 1997).

Dissociation between implicit and explicit self-esteem

Because both implicit and explicit self-esteem are formed based on interactions with significant others, one might expect a high degree of congruence between people's explicit and implicit self-evaluations. However, the existing evidence suggests that the correlation between implicit and explicit self-esteem is small at best (e.g., Bosson et al., 2000; Hetts, Sakuma, & Pelham, 1999; Pelham & Hetts, 1999; but cf. Pelham et al., 2005).

If both explicit and implicit self-esteem arise from interactions with significant others, why are they weakly related to one another? The reasons presumably have to do with differences in the nature of implicit and explicit beliefs (Epstein, 1994; Pelham & Hetts, 1999). First, people's implicit beliefs about the self are believed to develop at an earlier age than their explicit beliefs about the self (e.g., Hetts & Pelham, 2001; Koole et al., 2001). Implicit beliefs that presumably have their origins in early childhood experiences may become automatic over time. Because the quality of people's relationships may change over time and be reflected in their explicit belief system, their previously formed implicit beliefs may not be available for conscious articulation, but may still be elicited automatically.

Second, the valence and emotional tone of people's social interactions with close others should leave a clear mark on their implicit self-evaluations. However, when it comes to explicit self-evaluations, the desire to view the self favorably may cause people to ignore or reinterpret negative social experiences (Crocker & Major, 1989; Hetts & Pelham, 2003; Pelham, DeHart, & Carvallo, 2003). For example, Hetts and Pelham (2003) found that being overlooked on one's birthday was associated with

low implicit, but not low explicit, self-esteem. A third reason for the potential dissociation between implicit and explicit self-esteem is that, once formed, implicit self-esteem appears to change much more slowly than explicit self-esteem. In a study of acculturation and self-esteem, Hetts et al. (1999) demonstrated that whereas Asian Americans' explicit self-esteem changed very quickly when they immigrated to the US, their trait implicit self-esteem scores changed much more slowly. In fact, their trait implicit self-esteem scores appear to have increased slowly over a 10-year period.

Although the above evidence suggests that some experiences (such as being overlooked on one's birthday) can be consciously explained away, experiences that are more pervasive (such as moving to a new culture) can influence both explicit and implicit self-esteem (although change occurs more quickly for explicit self-esteem). Consistent with this idea, the quality of parent-child interactions, which are long lasting, begin early in life, and may be difficult to explain away (especially for young children), should be uniquely related to people's implicit as well as explicit self-esteem.

Study 1

In Study 1, we hoped to extend previous work on implicit self-esteem by assessing whether people's implicit self-evaluations were related to their self-reported interactions with their parents. Specifically, we expected that people who reported more negative interactions with their parents would have lower implicit self-esteem compared with those who reported more positive interactions. We had the same expectations for explicit self-esteem. In addition, we wanted to extend previous work on implicit self-esteem by taking multiple measures of implicit self-esteem to help improve the reliability and predictive validity of the measure (i.e., Bosson et al., 2000). This could prove to be very important because a common criticism of research on implicit self-esteem (and implicit social cognition more broadly) is that implicit measures often suffer from questionable reliability.

Method

Participants

Two hundred and nineteen students in an introductory social psychology course at the State University of New York at Buffalo participated for course credit. Participation was voluntary and anonymous. Students received extra course credit for attending class on each of the two occasions on which questionnaires were administered, even if they chose not to participate. Mean age was 21.25 years ($SD = 2.42$). We were unable to use

data from 60 students because they did not attend class the day the second questionnaire was administered, leaving 110 women and 49 men in the sample.¹

Overview of procedure

During a regular class session, students took part in a survey that focused on their “attitudes and family relationships.” Participants completed an explicit measure of self-esteem, self-concept clarity, a name-letter measure of implicit self-esteem, and a childhood experiences questionnaire. At the end of the survey, they reported their first and last name initials. Six weeks later, participants completed a follow-up survey containing the same explicit measure of self-esteem, name-letter measure, and childhood experiences questionnaire. We kept track of participants’ responses using confidential code numbers.

Measures

Explicit self-esteem. We used Rosenberg’s (1965) 10-item self-esteem scale that taps explicit global self-evaluations (e.g., “I feel that I have a number of good qualities”). Participants responded using a seven-point scale (1 = *completely true*, 7 = *not at all true*). Negative items were reverse-scored, such that higher scores indicated higher self-esteem (see the top of Table 1 for the means, standard deviations, and reliabilities for this and the following measures²).

Self-concept clarity scale. This 12-item scale measures the extent to which the contents of an individual’s self-concept are clearly and confidently defined, internally consistent, and temporally stable (Campbell et al., 1996). Responses were given on a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Negatively worded items were reverse-scored so that higher scores represent higher self-concept clarity.

Implicit self-esteem. The measure of implicit self-esteem was based on research on the name-letter effect (Kitayama & Karasawa, 1997; Nuttin, 1985, 1987). Specifically, participants’ implicit evaluation of their name-letter initials was assessed by asking them to rate their preferences for all of the letters of the alphabet. Participants were told that their ratings would be used to “develop stimuli for future studies of linguistic and pictorial preferences.” Participants were further told to “trust your intuitions, work quickly, and report your “gut impressions” (Jones et al., 2002). Preference ratings were made on a nine-point scale (1 = *dislike very much*, 9 = *like very*

Table 1

Means, standard deviations, reliabilities, and correlations for the measures used in Study 1

| Measures | Mean | <i>SD</i> | α | |
|-------------------------|------|-----------|------------------|-------|
| Time 1 | | | | |
| Explicit self-esteem | 5.63 | 1.09 | .90 | |
| Self-concept clarity | 4.30 | 1.28 | .88 | |
| Implicit self-esteem | 1.52 | 1.53 | .61 | |
| Authoritative | 6.61 | 1.77 | .95 | |
| Authoritarian | 3.00 | 1.56 | .88 | |
| Permissive | 3.55 | 1.29 | .79 | |
| Time 2 | | | | |
| Explicit self-esteem | 5.78 | 1.01 | .91 | |
| Implicit self-esteem | 1.63 | 1.55 | .52 | |
| Authoritative | 6.77 | 1.65 | .96 | |
| Authoritarian | 3.00 | 1.58 | .89 | |
| Permissive | 3.65 | 1.36 | .83 | |
| <i>Correlations</i> | | | | |
| Variables | 1 | 2 | 3 | 4 |
| 1. Quality of parenting | | .21* | .45** | .45** |
| 2. Implicit self-esteem | | | .15 [†] | .03 |
| 3. Explicit self-esteem | | | | .72** |
| 4. Self-concept clarity | | | | |

* $p < .05$.

** $p < .01$.

† $p < .10$.

much). We computed people’s preference for their name-letters by computing a baseline liking for each letter for participants whose initials do not include that letter (for information on scoring and validity, see Koole et al., 2001). Next, we computed a liking score that was the difference between participants’ rating of their first and last name initials and the relevant baseline preference score (positive numbers indicate stronger name-letter preferences). Participants’ name-letter preferences were computed by taking the average of their liking scores for their first and last name initials. This name-letter measure demonstrated acceptable test–retest reliability over the 6-week period, $r(145) = .60$, $p < .01$. Thus, we averaged the Time 1 and Time 2 implicit self-esteem scores to produce a single implicit self-esteem score ($\alpha = .75$).

Childhood experiences measure. Participants completed measures that assessed the type of *parenting style* their parents used when they were growing up. We constructed these measures based on Baumrind’s (1971) theory of parenting styles (and we pilot tested them for reliability prior to their use in this study). Seven of the questions focused on an *authoritative* parenting style (e.g., “My mother explained the reasons for the rules she established”), seven focused on an *authoritarian* parenting style (e.g., “My mother withdrew her love when I misbehaved or broke a rule”), and seven focused on a *permissive* parenting style (e.g., “My mother let me do pretty much what I pleased”). Participants answered these questions separately for their mothers and fathers

¹ The students who provided complete data did not differ significantly from the students we had incomplete data from on any of the self-concept or parenting variables.

² The implicit self-esteem measure has a slightly lower α than the other measures because this indicator only has two items.

using nine-point scales (1 = *rarely or never*; 9 = *very frequently*). Reports about mothers and fathers were averaged, and the authoritative, authoritarian, and permissive scales demonstrated good test–retest reliability over the 6-week test period, respectively, $r_s = .91, .88$, and $.83$, all $p_s < .01$.

Results

To determine whether the parenting variables could be reduced to a smaller number of dimensions, we conducted an exploratory factor analysis on an average of participants' Time 1 and Time 2 reports of parenting. The factor analysis suggested that the parenting variables could be reduced to a single factor that accounted for 63.22% of the variance, which we labeled quality of parenting. Next, scores on the authoritarian and permissive parenting dimensions were recoded (so that higher scores reflected a more favorable parenting style), and the three parenting subscales were combined ($\alpha = .71$) to create a single quality of parenting index.³

Was this quality of parenting score associated with children's implicit self-esteem scores (see bottom of Table 1 for the correlations between quality of parenting and the self-concept indicators)? Using AMOS, the structural equation-modeling program within SPSS for Windows, we constructed a model that allowed an assessment of the unique association between quality of parenting and participants' implicit self-esteem independent of any association between parenting and explicit self-esteem (see Fig. 1 for a conceptually similar model). As expected, path **a** linking participants' reports of their parents' parenting styles was related to their level of implicit self-esteem, $B = .24$, $\beta = .21$, $z = 2.51$, $p = .01$. Those who reported that they had more positive interactions with their parents had higher implicit self-esteem. More important, this relation was significant controlling for the path between parenting and explicit self-esteem (path **b**), $B = .41$, $\beta = .44$, $z = 5.64$, $p < .01$, and the path between implicit and explicit self-esteem (path **c**), $B = .02$, $\beta = .03$, $z = .33$, $p = .74$.⁴ In addition, the same pattern emerged when we substituted participants' self-concept clarity scores (a conceptually similar explicit self-concept indicator) for their explicit self-esteem scores.⁵

³ There was a moderate correlation between the students' reports of their mothers' and fathers' quality of parenting, $r(150) = .51$, $p < .01$. In addition, separate factor analyses on the students' reports of their mothers' and fathers' parenting are identical to the one for the combined indicators.

⁴ We drew the causal arrow from implicit to explicit self-esteem because theory suggests that people's implicit self-esteem develops earlier than their explicit self-esteem (Koole et al., 2001). If we draw the causal arrow from explicit to implicit self-esteem we see a similar pattern of results.

⁵ There were no significant gender differences in the relation between parenting and implicit self-esteem across the three studies.

Discussion

Study 1 provides what we believe to be the first evidence that people's recollections of their early interactions with their parents are related to their level of implicit self-esteem. Specifically, participants who recalled having had more nurturing and caring interactions with their parents also reported higher implicit self-esteem. In addition, the relation between implicit self-esteem and self-reported interactions with parents was significant even after controlling for participants' level of explicit self-esteem and self-concept clarity.

One of the strengths of Study 1 is that we developed a reliable, temporally stable indicator of perceived parenting style. The fact that our measure of parenting predicted explicit as well as implicit self-esteem supports its validity. On the other hand, we observed one parenting factor rather than the three we anticipated. In Study 2, we employed a measure of parenting style for which substantial validity data already exist, and we attempted to replicate and extend the findings of Study 1 by examining two additional dimensions of parenting—caring and overprotectiveness. Based on previous research on these parenting dimensions (Parker et al., 1979, 1997), we expected that people who reported that their parents engaged in more caring (i.e., nurturing) behaviors would have higher implicit self-esteem. In addition, we expected that people who reported that their parents were more overprotective than most would have lower implicit self-esteem.

Study 2

In Study 2, we examined multiple indicators of people's interactions with their parents to try and determine which specific dimensions of parenting are associated with people's implicit self-esteem. Parker et al. (1979) identified two factors that consistently emerged as core dimensions of parenting: (a) affection and warmth and (b) psychological control. In keeping with these findings, we supplemented our original parenting measures by adding Parker et al.'s well-validated measures of each of these two parenting dimensions in Study 2.

Because we only assessed implicit self-esteem on one occasion in Study 2 we also assessed an additional indicator of implicit self-esteem—people's birthday-number preferences (i.e., people's liking for the numbers corresponding to the day and month they were born). Although different measures of implicit self-esteem are often uncorrelated with one another (Bosson et al., 2000), the available evidence suggests that name-letter preferences and birthday-number preferences are significantly correlated (Bosson et al., 2000; Jones et al., 2002; Koole et al., 2001). The reason for this correlation between name-letter and birthday-number preferences is

likely due to the similarity in the type of cognitive processing required to complete the two measures (Koole & Pelham, 2002; see also Dijksterhuis, 2004).

Method

Participants

Students (53 women and 32 men) enrolled in an introductory psychology course at Colgate University participated in a study on close relationships in exchange for course credit. The students' mean age was 19.5 ($SD = .72$).

Procedure

Upon arriving at the laboratory, participants were escorted to individual cubicles containing a Macintosh computer. Upon completing measures of explicit self-esteem and self-concept clarity, participants completed computerized name-letter and birthday-number measures of implicit self-esteem. Participants were then asked to report their first and last name initials as well as their birthdays on the computer. Finally, they completed the childhood experiences questionnaires.

Measures

Explicit self-esteem and self-concept clarity. We used the same explicit self-esteem scale (Rosenberg, 1965) and the same self-concept clarity scale (Campbell et al., 1996) that we used in Study 1 (respectively, $\alpha_s = .89$ and $.90$).

Implicit self-esteem. Study 2 made use of a computerized version of the name-letter measure used in Study 1 as well as a birthday-number measure of implicit self-esteem. Participants first reported their preferences for the numbers 1–33. The numbers 33 and 32 were presented first, after which the other 31 numbers were presented randomly. Next, participants reported their preferences for the 26 letters of the alphabet. The letters X and Z were always presented first, after which the other letters were presented randomly. Participants reported their liking for each individual character using the number pad on their computer keyboards (1 = *dislike very much*, 9 = *like very much*). To compute implicit self-esteem we first separately computed name-letter and birthday-number preferences (by averaging participants' first and last name initial preferences as well as their month of birth and day of birth preferences). Surprisingly, participants total name-letter liking scores were not significantly correlated with their total birthday-number liking scores, $r(79) = .17$, $p = .12$. Nonetheless, because past research has typically found a relation between these two implicit measures (Bosson et al., 2000; Koole et al., 2001), and because they appear to behave in a very similar fashion (Jones et al., 2002) we combined them into a single

index of implicit self-esteem (see also Baccus et al., 2004).⁶

Childhood experiences measure. Study 2 made use of the same parenting style measure used in Study 1. The authoritative, authoritarian, and permissive subscales all had good internal reliability (respectively, $\alpha_s = .93$, $.84$, and $.70$).

Parental bonding inventory. Participants also completed Parker et al.'s (1979) 25-item measure of two dimensions of parents' interaction styles: *caring* (nurturance) and *overprotectiveness*. The caring subscale consisted of 12 items (e.g., "My mother spoke to me in a warm and friendly voice") and the overprotective subscale consisted of 13 items (e.g., "My mother tried to control everything I did" and "My mother was overprotective of me"). Participants answered these questions about their mothers and fathers using four-point scales (1 = *very unlike*, 4 = *very like*). Reports about mothers and fathers were averaged, and the caring and overprotectiveness subscales both had good internal reliability (respectively, $\alpha_s = .95$ and $.84$).

Results

To determine whether the five scale scores that collectively made up the Parental Bonding Inventory and the Childhood Experiences Measure could be reduced to a smaller number of meaningful dimensions, we conducted a series of factor analyses. An exploratory factor analysis with an oblique rotation suggested that the five parenting variables could be reduced to two factors accounting for 79.42% of the variance. The first factor consisted of the authoritative, authoritarian, caring, and overprotective subscales (with negative loadings for authoritarianism and overprotectiveness). The second factor was the permissive parenting subscale, although the overprotective subscale also loaded highly on this factor. Because the overprotective subscale loaded highly on both factors, we conducted a confirmatory factor analysis on the authoritative, authoritarian, caring, and overprotective subscales that made up the first factor to determine whether a one-factor model adequately fits these subscales. The results suggest that a one-factor model did not adequately fit the data, $\chi^2(2) = 40.55$, $p < .01$, $\chi^2/df = 20.28$, CFI = .82, NFI = .82. An inspection of the factor loadings revealed that the overprotective subscale failed to have an adequate loading on the parenting factor (e.g., standardized

⁶ We combined these two implicit measures because we believe that two weakly related variables can indeed both be assessing implicit self-esteem (for a related argument on implicit memory see Buchner & Wippich, 2000; Perruchet & Baveux, 1989). In addition, because past research typically finds a significant relation between these measures we wanted to take a conservative approach and combine them.

Table 2
Correlations between the parenting and self-concept variables used in Study 2

| Variables | 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------------|---|--------|-------------------|-------|--------|--------|
| 1. Nurturance | | -.47** | -.21 [†] | .33** | .32** | .39** |
| 2. Overprotectiveness | | | -.08 | -.28* | -.16 | -.29** |
| 3. Permissiveness | | | | -.05 | -.29** | -.15 |
| 4. Implicit self-esteem | | | | | .22* | .26* |
| 5. Explicit self-esteem | | | | | | .60** |
| 6. Self-concept clarity | | | | | | |

* $p < .05$.

** $p < .01$.

[†] $p < .10$.

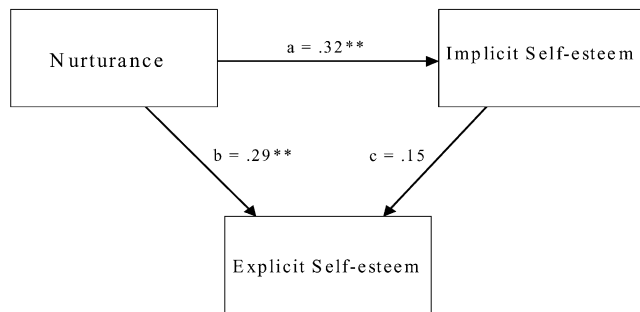


Fig. 1. The relation between children's reports of parental nurturance and implicit self-esteem controlling for explicit self-esteem (Study 2).

loading = $-.32$). Therefore, we removed the overprotective subscale from the first factor. In addition, because the overprotective and permissive subscales were uncorrelated with one another, $r(80) = -.08$, $p = .50$, we treated each subscale as a separate factor. Nonetheless, it is worth noting that analyses in which we combined all five factors into a single factor yielded results very similar to those we report below.

The three resulting factors were labeled: (a) nurturance, (b) overprotectiveness, and (c) permissiveness (see Table 2 for the correlations between these parenting variables and the self-concept indicators).⁷ Scores on the authoritarian dimension were recoded (so that higher scores reflected a more favorable parenting style), and the three subscales that made up the nurturance factor (authoritative, authoritarian, and caring) were standardized and then combined. The resulting scale had good internal reliability ($\alpha = .88$).

Is parenting related to implicit self-esteem?

Did the parenting variables predict children's implicit self-esteem? As summarized in Fig. 1, path **a** linking parental nurturance to implicit self-esteem was significant. Specifically, participants who reported that their

⁷ Students' reports of their mothers' and fathers' parenting styles were correlated with one another for nurturance, overprotectiveness, and permissive, respectively, $r_s = .51$, $.49$, and $.52$, $p_s < .01$. In addition, separate factor analyses on the students' reports of their mothers and fathers parenting are identical to the ones we reported in the paper for the combined indicators of parenting.

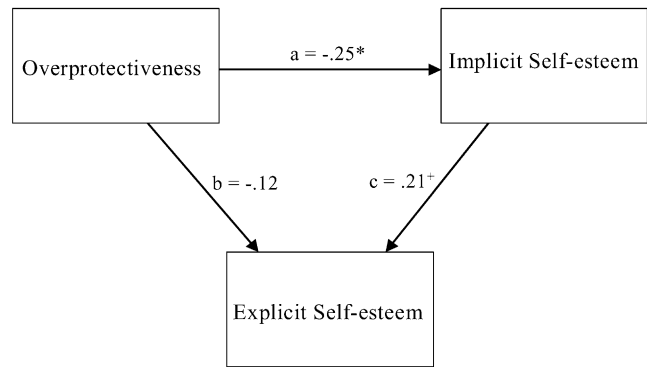


Fig. 2. The relation between children's reports of parental overprotectiveness and implicit self-esteem controlling for explicit self-esteem (Study 2).

parents were more nurturing had higher implicit self-esteem compared with those who reported that their parents were less nurturing. Most important, this relation was significant controlling for the positive relation between parental nurturance and explicit self-esteem (path **b**) and the relation between implicit and explicit self-esteem (path **c**).

In addition, we found that participants' level of implicit self-esteem was related to how overprotective they reported their parents were while they were growing up (see Fig. 2 for coefficients). Specifically, participants who reported that their parents were more overprotective had lower implicit self-esteem compared with children who reported that their parents were less overprotective. However, there was no significant relation between overprotectiveness and explicit self-esteem. The association between overprotectiveness and implicit self-esteem also remained significant controlling for explicit self-esteem.

Surprisingly, participants' level of implicit self-esteem was unrelated to their reports of how permissive their parents were while they were growing up (see Fig. 3 for coefficients). However, their level of explicit self-esteem was related to their reports of parental permissiveness (path **b**). That is, participants who reported that their parents had been more permissive had lower explicit self-esteem compared with children who reported that

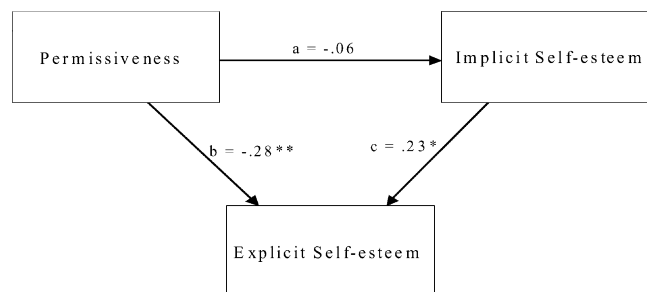


Fig. 3. The relation between children's reports of parental permissiveness and implicit self-esteem controlling for explicit self-esteem (Study 2).

their parents had been less permissive. Consistent with the findings from Study 1, the same pattern of results emerged for all three parenting variables when we substituted participants' self-concept clarity scores for their explicit self-esteem scores.

Discussion

The results of Study 2 replicate and extend the finding that implicit self-esteem is related to people's reports of their early experiences with their parents. Consistent with previous research on the structure of parenting (Parker et al., 1979), the dimensions of nurturance and overprotectiveness appeared to be the two most important components of parenting. Specifically, individuals who reported that their parents had been more nurturing had higher implicit and explicit self-esteem compared with people who recalled their parents had been less nurturing. In addition, students who perceived that their parents had been more versus less overprotective had lower implicit self-esteem. However, overprotectiveness was unrelated to explicit self-esteem. Surprisingly, parental permissiveness was unrelated to implicit self-esteem. However, permissiveness was significantly, and negatively, related to explicit self-esteem. Thus, the null findings for permissiveness do not appear to reflect a limitation in the measure of this component of parenting. Study 3 was conducted in part to further examine this discrepancy in the associations between permissiveness and implicit versus explicit self-esteem.

Study 2 also raised some questions about the best way to assess implicit self-esteem. That is, when we separately look at the findings for name-letter and birthday-number preferences we only observed a significant pattern of results when looking at birthday-number preferences. That is, the relation between students' reports of parental nurturance and birthday-number preferences was significant, $B = .59$, $\beta = .29$, $z = 2.65$, $p < .01$ (controlling for explicit self-esteem) as was the relation between students' reports of parental overprotectiveness and birthday-number preferences $B = -1.10$, $\beta = -.26$, $z = -2.40$, $p < .05$ (controlling for explicit self-esteem). When we looked only at the name-letter measure, we observed a non-significant pattern of results in the same direction for both nurturance, $B = .25$, $\beta = .15$, $z = 1.34$, $p = .18$, and overprotectiveness, $B = -.20$, $\beta = -.06$, $z = -.52$, $p = .60$. Consistent with our previous findings, students' reports of parental permissiveness were unrelated to implicit self-esteem for both the birth-date and name-letter measures of implicit self-esteem.

The finding that the relation between parenting and implicit self-esteem was weaker for the name-letter measure (alone) in Study 2 may seem inconsistent with the findings from Study 1. However, in Study 1, we assessed name-letter ratings on two occasions. We

assume that although implicit self-esteem may vary from moment to moment, most people possess a chronic level of implicit self-esteem (see Hettis & Pelham, 2001). At first blush the idea that implicit self-esteem can be both highly stable and highly malleable seems paradoxical. Nonetheless, there are many physical as well as psychological constructs that have these properties. For example, although blood pressure and pulse rate can vary dramatically from moment to moment (e.g., because of exercise), everyone has a chronic blood pressure level. In the case of implicit self-esteem, the easiest way to clarify this important distinction is to recognize the difference between an individual's trait versus state level of implicit self-esteem. Presumably, the ideal way to assess a person's level of *trait implicit self-esteem* would be to assess implicit self-esteem on numerous occasions, taking an average across all of these occasions. Moreover, regardless of one's view of the malleability of implicit self-esteem, basic psychometric considerations suggest that researchers interested in assessing any trait would do well to assess this trait on multiple occasions. In Study 3, we addressed this issue by assessing participants' name-letter preferences on multiple occasions.

Finally, although the results of Studies 1 and 2 suggest that the quality of people's early childhood experiences is related to their level of implicit self-esteem, there is an important alternative explanation for these findings. Specifically, people's current beliefs and feelings about the self could tarnish their reports of their childhood experiences with their parents. That is, there is good evidence that people's current beliefs about the self can influence the imagined appraisals of others (Kenny, 1994; Shrauger & Schoeneman, 1979). In addition, there is evidence that adult children with low self-esteem underestimate how much their mothers actually love them (DeHart et al., 2003). Therefore, if people's explicit beliefs about the self can bias their perceptions of their current or past relationships, it is possible, in principle, that their implicit beliefs can do the same. Therefore, in Study 3 we obtained independent parenting style reports from participants' mothers, in addition to their own reports of her parenting style.

Study 3

In Study 3, we tried to replicate and extend the findings from Studies 1 and 2 by repeatedly assessing implicit and explicit self-esteem and making use of both participants' self-reports of their mothers' parenting behaviors and mothers' reports of their own parenting behaviors. Having multiple indicators of implicit and explicit self-esteem, as well as the parenting variable we

labeled nurturance, allowed us to create latent variables that we could use to model the relation between parenting and self-esteem. In addition, we wanted to reassess the structure of the parenting factors observed in Study 2 and reassess the relation between these parenting factors and implicit self-esteem. Finally, we wanted to replicate the findings of Study 2 by seeing if: (a) nurturance would be related to both implicit and explicit self-esteem, (b) overprotectiveness would be related to implicit, but not explicit self-esteem, and (c) permissiveness would be related to explicit, but not implicit self-esteem.

Method

Participants

Children. Students (190 women and 119 men) enrolled in an introductory social psychology course at the State University of New York at Buffalo participated in the first phase of a study on close relationships. The student's mean age was 21.9 ($SD=3.9$). Participants received extra course credit for participating.

Mothers. Two hundred and seventeen mothers of the children in our study participated in a study on close relationships. Mothers' mean age was 48.4 ($SD=6.6$).

Procedure

Children. During a regular class session, students provided demographic information and completed measures of explicit self-esteem and self-concept clarity, a name-letter measure of implicit self-esteem, and the two sets of parenting measures used in Study 2. Then, every Tuesday and Thursday for three consecutive weeks, participants completed a daily record that included a measure of state explicit self-esteem and a name-letter measure of implicit self-esteem. At the end of the study, participants were asked to report their first and last name initials.

Mothers. On the day of the fourth assessment, all those attending lecture were asked to address an envelope to their mothers (238 children did so). The mothers were informed that if they returned a confidential questionnaire, their child would receive one extra credit point toward the final course grade. Two hundred and seventeen mothers (91%) returned questionnaires. The mother's surveys were patterned directly after the portion of the children's surveys that focused on parenting. The data from 154 mother–child dyads were used for the analyses.⁸

⁸ The children who provided complete data did not differ significantly from the children we had incomplete data from on any of the parenting or self-concept variables.

Table 3

Means, standard deviations, and reliabilities for the primary measures used in Study 3

| Measures | Mean | SD | α |
|-----------------------------------|------|------|----------|
| <i>Children</i> | | | |
| Trait explicit self-esteem | 5.65 | 1.08 | .91 |
| Authoritative | 6.79 | 1.94 | .94 |
| Authoritarian | 2.90 | 1.64 | .82 |
| Permissive | 3.58 | 1.43 | .76 |
| Caring | 3.30 | .69 | .94 |
| Overprotective | 2.01 | .56 | .84 |
| <i>Children repeated measures</i> | | | |
| First initial liking | 1.89 | 2.03 | .90 |
| Last initial liking | 1.42 | 2.16 | .90 |
| State explicit self-esteem | 5.87 | 1.11 | .93 |
| <i>Mothers</i> | | | |
| Authoritative | 8.06 | .87 | .85 |
| Authoritarian | 2.28 | 1.21 | .79 |
| Permissive | 3.28 | 1.27 | .77 |
| Caring | 3.62 | .33 | .73 |
| Overprotective | 1.99 | .40 | .70 |

Background measures

Trait explicit self-esteem. Study 3 made use of the same explicit self-esteem measure used in Studies 1 and 2 (see Table 3 for the means, standard deviations, and reliabilities for this and the following measures).

Childhood experiences measure. Children filled out the same *parenting style* questionnaire used in Studies 1 and 2. In addition, mothers completed reworded versions of this measure (e.g., “I explained the reasons for the rules I established,” “I withdrew my love when my child misbehaved or broke a rule,” and “I let my child do pretty much anything she/he pleased”). Both children and mothers answered these questions on nine-point scales (1 = *rarely or never*; 9 = *very frequently*).

Parental bonding inventory. Children also completed the same parents' interaction styles survey used in Study 2 (Parker et al., 1979). Mothers filled out reworded versions of this measure (e.g., “I spoke to my child in a warm and friendly voice” and “I tried to control everything my child did”). Both children and mothers answered these questions on a four-point scale (1 = *very unlike*, 4 = *very like*).

Repeated measures

State self-esteem. An adapted version of the Rosenberg Self-esteem Scale was used to assess state self-esteem (Rosenberg, 1965) during each of the six classroom sessions (Kernis, Cornell, Sun, Berry, & Harlow, 1993). Participants were instructed to report how they were feeling about themselves *at this moment* (e.g., “At this moment, I feel that I have a number of good qualities),

using a seven-point scale (1 = *disagree very much*, 7 = *agree very much*). Negatively worded items were reverse-scored so that higher scores reflected higher state self-esteem.

Implicit self-esteem. The name-letter measure of implicit self-esteem was administered during each of the six classroom sessions (Kitayama & Karasawa, 1997; Nuttin, 1985, 1987). We averaged participants first and last initial liking across the six assessments to produce single indicators of these two scores.

Results

Factor analyses were conducted to determine whether the five parenting subscales could be reduced to a smaller number of meaningful dimensions. The

same exploratory factor analysis we conducted in Study 2 yielded a virtually identical factor structure, yielding two factors accounting for 79.42% of the variance. The first factor consisted of the authoritative, authoritarian, and caring subscales. The second factor included the overprotective and permissive parenting subscales. Consistent with the findings of Study 2, the overprotective and permissive parenting subscales were uncorrelated with one another $r(152) = -.09$, $p = .25$. Therefore, we again placed the overprotective and permissive subscales into two separate factors reducing the parenting variables to three factors labeled: (a) nurturance, (b) overprotectiveness, and (c) permissiveness.

We reduced the mother's data to the same three factors as the children's data, and this factor structure was supported with a factor analysis accounting for 68.92%

Table 4

Correlations between children and mothers' reports of parenting and children's self-concept variables used in Study 3: children above the diagonal, mothers below the diagonal

| Variables | 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------------------|--------|--------|-------|-------|--------|--------|
| 1. Nurturance | | -.21** | -.20* | .23** | .31** | .19* |
| 2. Overprotectiveness | -.23** | | -.09 | -.20* | -.29** | -.23** |
| 3. Permissiveness | -.34** | .08 | | -.05 | -.09 | -.11 |
| 4. Implicit self-esteem | .22** | -.20* | -.08 | | .18* | .22** |
| 5. Explicit trait self-esteem | .31** | -.10 | -.14† | .18* | | .66** |
| 6. Self-concept clarity | .21** | -.16* | -.03 | .22* | .66** | |

* $p < .05$.

** $p < .01$.

† $p < .10$.

Table 5

Factor loadings and fit indices for children's hybrid models predicting implicit self-esteem from parenting controlling for explicit self-esteem (Study 3)

| Latent factor | Factor loadings for parenting models ^a | | | | | | |
|--------------------------------|---|--------------------|----------------|-------------|-----|-----|-------|
| | Nurturance | Overprotectiveness | Permissiveness | | | | |
| <i>Nurturance</i> | | | | | | | |
| Authoritative | .92 | | | | | | |
| Authoritarian | -.76 | | | | | | |
| Caring | .95 | | | | | | |
| <i>Implicit self-esteem</i> | | | | | | | |
| Average first initial | .61 | .64 | .56 | | | | |
| Average last initial | .82 | .77 | .88 | | | | |
| <i>Explicit self-esteem</i> | | | | | | | |
| Trait self-esteem | .90 | .83 | .88 | | | | |
| State self-esteem | .97 | 1.05 | .99 | | | | |
| <i>Goodness of fit summary</i> | | | | | | | |
| Model | χ^2 | df | p | χ^2/df | GFI | NFI | RMSEA |
| Nurturance | 17.07 | 11 | .11 | 1.55 | .97 | .97 | .06 |
| Overprotective | 2.23 | 3 | .53 | .74 | .99 | .99 | .00 |
| Permissive | 1.24 | 3 | .74 | .41 | 1.0 | .99 | .00 |

Note. GFI, Jöreskog-Sörbom Goodness of Fit Index; NFI, Bentler-Bonett Normed Fit Index; RMSEA, Browne and Cudeck Root Mean Square Error of Approximation.

^a Standardized estimates are presented.

Table 6

Factor loadings and fit indices for mother's hybrid models predicting children's implicit self-esteem from parenting controlling for explicit self-esteem (Study 3)

| Latent factor | Factor loadings for parenting models ^a | | | | | | |
|--------------------------------|---|--------------------|----------------|-------------|-----|-----|-------|
| | Nurturance | Overprotectiveness | Permissiveness | | | | |
| <i>Nurturance</i> | | | | | | | |
| Authoritative | .84 | | | | | | |
| Authoritarian | -.63 | | | | | | |
| Caring | .79 | | | | | | |
| <i>Implicit self-esteem</i> | | | | | | | |
| Average first initial | .77 | .88 | .52 | | | | |
| Average last initial | .64 | .56 | .95 | | | | |
| <i>Explicit self-esteem</i> | | | | | | | |
| Trait self-esteem | .92 | 1.03 | .79 | | | | |
| State self-esteem | .95 | .85 | 1.11 | | | | |
| <i>Goodness of fit summary</i> | | | | | | | |
| Model | χ^2 | df | p | χ^2/df | GFI | NFI | RMSEA |
| Nurturance | 9.57 | 11 | .57 | .87 | .98 | .98 | .00 |
| Overprotective | 2.91 | 3 | .41 | .97 | .99 | .99 | .00 |
| Permissive | 2.83 | 3 | .42 | .94 | .99 | .99 | .00 |

Note. GFI, Jöreskog-Sörbom Goodness of Fit Index; NFI, Bentler–Bonett Normed Fit Index; RMSEA, Browne and Cudeck Root Mean Square Error of Approximation.

^a Standardized estimates are presented.

of the data.⁹ Table 4 presents the correlations between children (above diagonal) and mothers' (below diagonal) reports of parenting and the children's self-concept variables.

Children's reports of parenting styles and implicit self-esteem

Because we had multiple parenting indicators for our nurturance parenting factor (authoritative, authoritarian, and the care subscales), two indicators of explicit self-esteem (trait self-esteem and the average of the six explicit state self-esteem assessments), and two indicators of implicit self-esteem (average first name liking across the six assessments and average last name liking across the six assessments) we used these indicators to create latent variables for nurturance, implicit self-esteem, and explicit self-esteem.¹⁰ Using AMOS, we constructed a series of hybrid structural equation models with latent variables (Kline, 1998) to determine whether children's report of their mother's

parenting styles were related to children's implicit self-esteem. We first predicted children's implicit self-esteem from nurturance and their own explicit self-esteem (see the top left side of Table 5 for the factor loadings). Consistent with the results of Study 2, path **a** linking children's reports of mothers' nurturance to implicit self-esteem was significant, $B = .16$, $\beta = .26$, $z = 1.98$, $p = .05$. Latent scores on children's reports of the nurturance dimension were positively associated with the latent score for implicit self-esteem. Most important, this relation was significant controlling for the positive relation between nurturance and explicit self-esteem (path **b**), $B = .22$, $\beta = .40$, $z = 4.45$, $p < .01$, and the relation between implicit and explicit self-esteem (path **c**), $B = .10$, $\beta = .11$, $z = 1.20$, $p = .23$. The bottom portion of Table 5 provides convergent evidence from several fit indices suggesting that this and the following hybrid models are a good fit to the data.

The next model we constructed used our single indicator of overprotectiveness (see the middle of Table 5 for the factor loadings). As expected, children who reported that their mothers were more overprotective had lower implicit self-esteem compared with children who reported their mothers were less overprotective, $B = -.47$, $\beta = -.23$, $z = -1.95$, $p = .05$. Again, this relation was significant controlling for the negative relation between overprotectiveness and explicit self-esteem, $B = -.54$, $\beta = -.34$, $z = -3.69$, $p < .01$, and the relation between implicit and explicit self-esteem, $B = .08$, $\beta = .10$, $z = 1.14$, $p = .26$. The only difference between these findings and those from Study 2 is that overprotectiveness was related to explicit self-esteem.

⁹ Children's reports of their mothers' parenting styles were correlated with the mothers' reports of their own parenting styles for nurturance, overprotectiveness, and permissive, respectively, $r_s = .55$, $.30$, and $.29$, $p_s < .001$.

¹⁰ We did not include all six measures of state explicit self-esteem as separate indicators in our latent model because only participants who were present for all six assessments would have been included in our analyses—which would only have left slightly over half of our sample size. Because we believe that participants have a fairly stable level of trait self-esteem around which their state self-esteem fluctuates, we used the average of each person's state self-esteem scores in our model. We also followed this logic for our average first and last name initial indicators of implicit self-esteem.

Finally, we constructed a model predicting implicit self-esteem from the permissiveness variable (see the right side of Table 5). Consistent with the findings from Study 2, children's level of implicit self-esteem was unrelated to their reports of how permissive their mother's were, $B = -.03$, $\beta = -.05$, $z = -.52$, $p = .60$. However, unlike the results of Study 2, children's reports of their mothers' permissiveness were not significantly related to their explicit self-esteem (though the trend was in the same direction as in Study 2), $B = -.07$, $\beta = -.12$, $z = -1.41$, $p = .16$. However, the relation between children's level of implicit and explicit self-esteem was marginally significant, $B = .19$, $\beta = .19$, $z = 1.90$, $p = .06$.

Mothers' reports of parenting styles and their children's implicit self-esteem

Did a parallel pattern of results emerge for mothers? With a few minor exceptions, the findings for mothers were identical to those for children (see Table 6 for all factor loadings and fit indices). Fig. 4 presents the standardized coefficients for the relation between mother's report of their own level of nurturance and children's implicit and explicit self-esteem scores. Mothers who reported that they were more nurturing had children with higher implicit self-esteem. The path between mothers' reports of

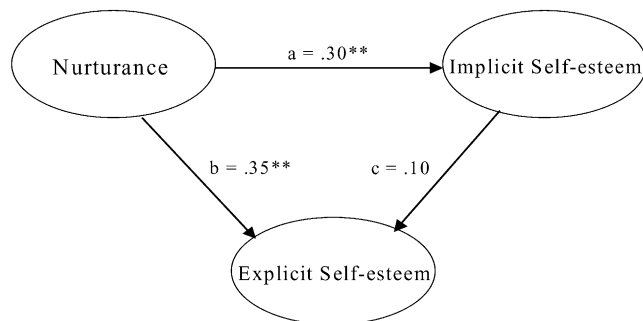


Fig. 4. The relation between mother's reports of nurturance and children's implicit self-esteem controlling for their explicit self-esteem (Study 3).

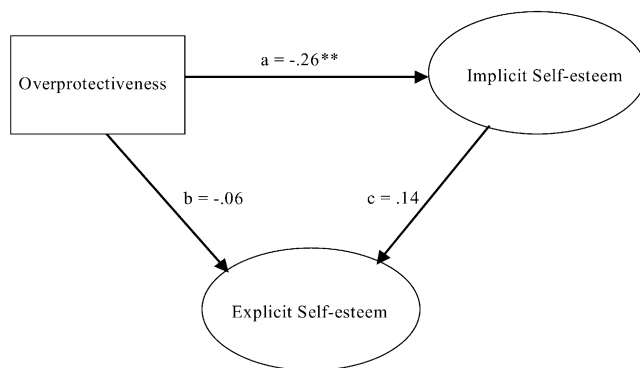


Fig. 5. The relation between mother's reports of overprotectiveness and children's implicit self-esteem controlling for their explicit self-esteem (Study 3).

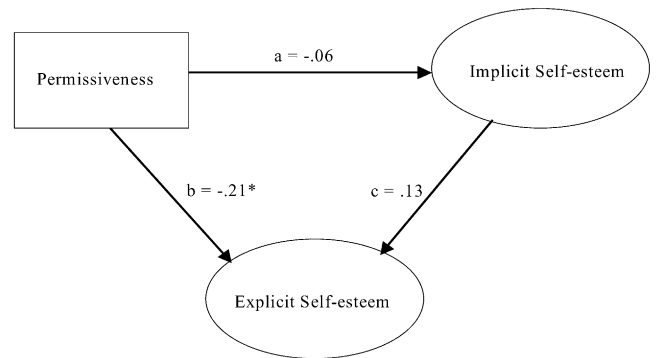


Fig. 6. The relation between mother's reports of permissiveness and children's implicit self-esteem controlling for their explicit self-esteem (Study 3).

nurturance and their children's implicit self-esteem was significant controlling for children's explicit self-esteem.

The results for mothers' reports of overprotectiveness (see Fig. 5) and permissiveness (see Fig. 6) were also almost identical to those for children. Mothers who reported that they were more overprotective had children with lower implicit self-esteem compared with mothers who were less overprotective. However, unlike the findings based on children's report of parenting, and consistent with the findings of Study 2, mothers' reports of overprotectiveness were not significantly related to their children's level of explicit self-esteem. In addition, and also in keeping with the results of Study 2, mothers' reports of their own level of permissiveness were unrelated to children's level of implicit self-esteem. Furthermore, mother's reports of their own level of permissiveness were negatively related to children's explicit self-esteem. In short, the analyses of both implicit and explicit self-esteem based on mothers' own independent reports of their parenting styles closely mirrored the results of Study 2.

Discussion

Consistent with the findings of Studies 1 and 2, children who reported that their mothers were more nurturing had higher implicit and explicit self-esteem compared with children who reported their mothers were less nurturing. In addition, children who reported that their mothers were highly overprotective tended to have low implicit self-esteem. These results replicated using the mothers' own independent reports of their parenting behavior. Specifically, mothers who reported that they were more nurturing and less overprotective had children with higher levels of implicit self-esteem.

Children and mothers' reports of mothers' permissiveness were unrelated to children's levels of implicit self-esteem, but were negatively associated with explicit self-esteem. This lack of a relation between permissive parenting and implicit self-esteem may be due to the

inconsistency in the messages that permissive parents send to their children (Baumrind, 1971). For example, although permissive parents are likely to be openly warm and caring, they may also send children the message that they do not care—because they do not bother to enforce rules or provide structure. Perhaps it is this inconsistency in the feedback children receive that explains the lack of a relation between permissive parenting and implicit self-esteem.

A limitation of Studies 1 and 2 was that people's current beliefs and feelings about the self could tarnish their reports of their childhood experiences with their parents. Study 3 minimized this possibility by showing that mothers' reports of their parenting style were related to their adult children's implicit self-esteem levels. However, one might expect that children with high self-esteem may have mothers who are also high in self-esteem (and thus also show biased recall of parent–child interactions). However, we observed no correlation between mother's and children's implicit self-esteem, $r(134) = -.01$, $p = .95$, and only a very small correlation for explicit self-esteem, $r(152) = .17$, $p = .03$ (see DeHart et al., 2003; who also observed no correlation between children and their mothers explicit self-esteem). Therefore, it seems unlikely that we are observing this convergence in the association between children and mothers' reports of parenting and children's implicit self-esteem because both are exhibiting biased recall of early parent–child interactions. Nonetheless, it is important to note that the list of traits that mothers and their children could share is very long. Needless to say, other biasing influences shared by mothers and their children could threaten our preferred causal account of these findings. Our correlational design cannot allow us to rule out reverse causality.

General discussion

The current studies extend previous research on self-esteem by examining the potential origins of implicit self-esteem. In particular, reports of children's early interactions with their parents were related to the children's levels of implicit self-esteem across all three studies. In addition, Study 3 revealed that mothers' own independent reports of their early interactions with their children were related to children's level of trait implicit self-esteem. Specifically, our findings suggest that: (a) nurturance was uniquely related to both implicit and explicit self-esteem, (b) overprotectiveness was reliably related to implicit self-esteem, but was not reliably related to explicit self-esteem, and (c) permissiveness was related to explicit, but not implicit, self-esteem. Finally, the associations between nurturance and overprotectiveness and implicit self-esteem occurred above and beyond similar associations involving explicit self-esteem.

To our knowledge, this is the first empirical evidence that people's early interactions with their parents are related to their level of implicit self-esteem as adults. As such, these findings constitute some of the first theoretically based, replicable evidence for the validity of implicit self-esteem (Bosson et al., 2000). For that matter, it is worth noting that we know of very little previous data that address these same questions with regard to parenting and explicit self-esteem. People's perceptions of their interactions with their parents during childhood are predictably related to both their implicit and their explicit self-esteem as young adults. These studies thus validate implicit self-esteem and help to distinguish it empirically from explicit self-esteem.

The current studies also document the methodological benefits of repeatedly assessing implicit self-esteem. Apparently, the relation between parenting and implicit self-esteem was weak for the name-letter measure in Study 2 because we only assessed name-letter liking once in Study 2. Because implicit measures tend to be somewhat less reliable compared with explicit measures (see Kawakami and Dovidio, 2001; for a related discussion of measures of implicit stereotyping), assessing implicit self-esteem multiple times is clearly the ideal way to assess trait implicit self-esteem. Although early work in social cognition often took the position that automatic beliefs are cast in stone, more recent work has emphasized the dynamic, flexible nature of implicit beliefs (e.g., see Dijksterhuis, 2004; Lowery, Hardin, & Sinclair, 2001). Thus, we believe that state implicit self-esteem can change based on current contextual influences (i.e., negative events, DeHart & Pelham, 2005), but we also believe that people possess a certain trait level of implicit self-esteem—around which their state implicit self-esteem fluctuates (see Kernis et al., 1993, for a similar argument regarding explicit self-esteem). In short, due to the less reliable nature of measures of implicit beliefs as well as the meaningful short-term fluctuations that occur so readily for implicit self-esteem, assessing implicit self-esteem on multiple occasions is likely the best way to assess trait implicit self-esteem. It is probably no accident that our results generally grew stronger when we assessed implicit self-esteem on more than one occasion or using more than one implicit measure.

Although our findings answer several important questions about the potential origins of both implicit and explicit self-esteem, they also raise at least four questions. First, we would like to argue that people's implicit self-esteem is the outcome of the experiences they had with their parents while they were growing up. However, it is possible that people with higher implicit self-esteem report more positive interactions with their parents. Although we cannot make causal claims on the basis of retrospective data, the convergence of children's and mothers' descriptions of mothers' parenting style

provides additional support for these retrospective reports. Nonetheless, determining the precise causal relation between parenting and implicit self-esteem will require longitudinal research.

A second issue to consider is that the causal relation between implicit and explicit self-esteem may be different than the one we depicted in our models. For instance, it is likely that implicit self-esteem is often a consequence as well as a cause of explicit self-esteem. For example, it seems reasonable to assume that if people repeatedly express positive explicit views about themselves, over time these views may become automatized (Hetts et al., 1999). However, we drew the causal arrow from implicit to explicit self-esteem because theory suggests that implicit self-esteem develops prior to explicit self-esteem (e.g., Bowlby, 1982; Koole et al., 2001). In fact, people's implicit beliefs presumably begin to form before the development of language and thus before the development of explicit beliefs. Although we have no doubt that explicit self-esteem sometimes influences implicit self-esteem (see Jones et al., 2002), theory on the development of implicit self-esteem suggests that it is reasonable to treat implicit self-esteem as a predictor of explicit self-esteem.

A third important issue is whether name-letter preferences are in fact assessing people's unconscious beliefs about the self. Several investigators have noted that it is difficult to know whether measures of implicit self-esteem assess unconscious beliefs or assess conscious beliefs in an indirect way (Fazio & Olson, 2003; Pelham et al., 2005). Although we do not claim to have a simple answer to this question, we do know that the available evidence suggests that people's name-letter ratings reflect their automatic beliefs about the self (Koole et al., 2001). For example, people who were asked to think deliberately about their responses to the name-letter measure showed a disruption in name-letter biases. In addition, research shows that mildly threatening situations appear to activate positive implicit associations for people high in explicit self-esteem (Dodgson & Wood, 1998; Jones et al., 2002). That is, some associations may lie dormant until people experience threatening situations that activate these beliefs (Bowlby, 1982; Pelham et al., 2005). Finally, recent research suggests that implicit beliefs are sensitive to at least some experiences that remain completely out of awareness (Dijksterhuis, 2004).

A fourth issue is whether these findings would extend to other measures of implicit self-esteem. The current research relied on name-letter and birthday-number preferences (Bosson et al., 2000; Jones et al., 2002; Koole et al., 2001). In fact, different measures of implicit self-esteem are often weakly correlated with one another (as are different measures of implicit memory, Buchner & Wippich, 2000; Perruchet & Baveux, 1989). However,

recent research has observed similar effects on different measures of implicit self-esteem that are typically uncorrelated with one another (Baccus et al., 2004; Dijksterhuis, 2004; Pelham et al., 2005). For instance, separate research using the Implicit Association Test and the name-letter measure has linked high explicit and low implicit self-esteem with greater defensiveness and higher levels of narcissism (see Bosson et al., 2003, for name-letter findings; see Jordan et al., 2003, for IAT findings). Therefore, there is some evidence to suggest, albeit indirectly, that our results may extend to other measures of implicit self-esteem. However, future research should extend the current findings to other measures.

Dissociation between implicit and explicit self-esteem

Our results support the construct validity of the name-letter measure of implicit self-esteem. In fact, to our knowledge these are some of the first studies examining the potential origins of people's implicit beliefs about the self. However, if we look at implicit social beliefs more broadly, a great deal of research suggests that implicit and explicit belief systems operate independently of one another (e.g., Banaji & Hardin, 1996; Greenwald, McGhee, & Schwartz, 1998; Hetts et al., 1999; Koole & Pelham, 2002). The finding that people's perceptions of early experiences with caregivers are unique predictors of both explicit and implicit self-esteem is loosely consistent with this developing body of research suggesting that implicit and explicit beliefs are often dissociated.

Perhaps the most informative aspect of the current work is this finding: that different aspects of parenting are differentially related to implicit and explicit self-esteem. For example, people's perceptions of parental overprotectiveness were reliably related to implicit self-esteem but were not reliably related to explicit self-esteem. We suspect that this reflects changes in children's ability to make self-protective attributions as they grow older (e.g., see Wilson, Smith, Ross, & Ross, 2004). Because very young children are not as adept as their older counterparts at self-protection, the quality of very early parenting, such as being overprotective, might have a stronger impact on implicit than on explicit self-esteem. In other words, overprotectiveness may undermine very young children's (mostly implicit) sense of autonomy or competence (see Gilbert & Silvera, 1996) but may be much less problematic once children are old enough to engage in high levels of attributional correction. When older children make such corrections for parental overprotectiveness they may protect their explicit self-esteem, but the damage to their implicit self-esteem may remain.

We think that the pattern of findings we observed between parenting and self-esteem may also be explained

if one assumes that early interactions with parents matter more for implicit self-esteem and that later experiences with peers and close others matter more for explicit self-esteem. In addition, these different parenting variables likely influence the types of interpersonal experiences children have with close others as they grow older. For example, as children with overprotective parents grow older, they presumably experience many different types of relationships that influence their self-esteem. That is, positive experiences with friends or other family members during later childhood may be more closely related to young adults' explicit than to their implicit self-esteem. Although people's relationships may change over time and may be reflected in their explicit belief system, people's previously formed implicit beliefs likely will remain intact (see also [Hetts et al., 1999](#)). Importantly, these negative implicit beliefs may be elicited automatically and influence people's behavior (e.g., [Jordan et al., 2003](#)).

Our studies also showed that permissive parenting was reliably related to explicit but not to implicit self-esteem. This lack of a relation for implicit self-esteem may reflect the fact that although permissive parents are likely to be openly warm and caring, they may also send children the inconsistent message that they do not care—because they do not bother to enforce rules or provide structure. Alternately, the long term social problems created by permissive parenting may leave their mark more clearly on explicit self-esteem because explicit self-esteem is more closely related to young adults' recent life experiences. Thus, the children of permissive parents may receive increasingly negative feedback from peers and authority figures as they grow older because the impulsive or egocentric behaviors that were tolerated in children are no longer tolerated in adolescents or young adults.

Our results suggest that nurturance was uniquely related to implicit as well as explicit self-esteem. Although at first blush these results may seem inconsistent with models of dual attitudes that suggest that implicit and explicit beliefs develop from distinct experiences, we believe they are consistent with these models. First, our results are consistent with attachment theory, which suggests that people's conscious and unconscious working models are based upon the same types of experiences with primary caretakers. Second, it is plausible that *different* aspects of the same parenting style may have differential effects on implicit and explicit self-esteem. Specifically, parents who are nurturing may influence their children's implicit self-esteem through non-verbal channels, and their explicit self-esteem through verbal channels. Finally, unlike overprotectiveness and permissiveness, nurturance is likely to be experienced as unambiguously positive by children of all ages. Further, people who experience warm, positive relationships with parents growing up may also translate

these experiences into positive relationships with friends, romantic partners, and others during later childhood and early adulthood. Therefore, the children of nurturing parents are likely to develop positive implicit as well as explicit associations to the self.

The implicit sociometer

Are people's implicit beliefs about the self related to their well-being? Recent research suggests that implicit self-esteem is linked to a number of important physical and emotional outcomes. For instance, consistent with research on explicit self-esteem ([Brown & McGill, 1989](#)), people with low implicit self-esteem reported more negative health symptoms in response to positive events compared with people with high implicit self-esteem ([Shimizu & Pelham, 2004](#)). These effects of implicit self-esteem on health were independent of conceptually identical effects involving explicit self-esteem. In addition, having high implicit self-esteem seems to buffer people from negative consequences associated with doing poorly ([Dijksterhuis, 2004](#); [Greenwald & Farnham, 2000](#)), self-concept threats ([Jones et al., 2002](#); [Spalding & Hardin, 1999](#)), unrealistic optimism ([Bosson et al., 2003](#)), and negative daily experiences ([DeHart & Pelham, 2005](#)). Finally, assessing both implicit and explicit self-esteem can help identify people with secure high self-esteem versus people with defensive or fragile high self-esteem ([Bosson et al., 2003](#); [Jordan et al., 2003](#)).

The present studies are some of the first to link people's perceptions of early childhood experiences with implicit self-esteem. A greater understanding of the conditions under which implicit self-esteem is formed will enhance our understanding of self-esteem and self-regulation. A great deal of additional work will be necessary before researchers know exactly how our experiences with close others leave their mark on our implicit self-evaluations. For example, future research should examine other parenting variables that may influence the relation between implicit and explicit self-esteem, such as parenting variables that have been linked to increased narcissism and defensiveness ([Jordan et al., 2003](#)). Nonetheless, the present studies suggest that the time is ripe for examining both the origins and consequences of implicit self-esteem. If we wish to develop a better understanding of self-esteem, it appears that we must begin to take a closer look at the unconscious. Researchers have only begun to scratch the surface of implicit self-esteem, and much more presumably lies beneath.

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