

Attachment models of the self and others: Relations with self-esteem, humanity-esteem, and parental treatment

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Abstract

The present research tested the extent to which perceptions of early childhood experiences with parents predicted general views of the self (i.e., self-esteem) and others (i.e., humanity-esteem), and whether attachment self- and other-models mediated these links. Two studies used a new measure of humanity-esteem (Luke & Maio, 2004) to achieve these ends. As expected, indices that tapped a positive model of the self in relationships were associated with high self-esteem and indices that tapped a positive model of others in relationships were associated with high humanity-esteem. Also, early attachment experiences with fathers and mothers predicted self-esteem and humanity-esteem, respectively, and these direct relations were mediated by the attachment models. The studies, therefore, provide direct evidence that attachment measures predict general favorability toward the self and others, while revealing novel differences in the roles of childhood experiences with fathers and mothers.

No variables, it is held, have more far-reaching effects on personality development than a child's experiences within the family: for, starting during his first months in his relation with his mother figure, and extending through the years of childhood and adolescence in his relation to both parents, he builds up working models of how attachment figures are likely to behave towards him in any of a variety of situations; and on those models are based all his expectations, and therefore all his plans, for the rest of his life.

Bowlby (1973; p. 369)

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There is an enduring fascination with the notion that children's early experiences with their parents leave a permanent stamp on their lives. This idea is the centerpiece of Bowlby's (1969, 1973) seminal theory about attachment processes. As indicated in the above quote, Bowlby suggested that early attachment experiences (e.g., parental care) should influence the development of internal working models, which are crucial variables in subsequent social behavior throughout the lifespan. These internal working models are complex schemas that include feelings of self-worth and self-acceptance (model of self) and beliefs about the availability and

responsiveness of attachment figures, such as primary caregivers and significant others (model of others; Bowlby, 1969, 1973). In general, if a child receives sensitive, responsive care, then he/she will develop a view of the self as worthy and a view of others as reliable and predictable. However, if a child receives inconsistent care, rejection, or neglect, he/she may develop a view of the self as unworthy and a view of others as unreliable. These models of early attachment experiences will be carried forward in life and influence expectations for other attachment figures and for people in the world in general.

Because internal working models are presumed to subsume many beliefs and feelings about the self and others, efforts to validate measures of these internal working models have focused on their relations to evaluations and expectations of the self and others (e.g., Bartholomew & Horowitz, 1991; Cozzarelli, Hoekstra, & Bylsma, 2000; Griffin & Bartholomew, 1994a, 1994b; Gurung, Sarason, & Sarason, 2001). The present research re-examines the relations between internal working models of attachment, general evaluations of the self and others, and perceptions of parental treatment early in life. To foreshadow, we argue that prior research that has examined these links has not adequately assessed evaluations of *others* in general at the ultimate level (i.e., humanity-esteem), beyond the contexts of relationships. Furthermore, we test whether a direct measure of humanity-esteem yields relations with parental treatment and internal working models of the self and others that are consistent with Bowlby's theory.

Attachment and Esteem for the Self and Others

Internal working models of the self and others can be tapped by measures that have been developed to assess attachment styles in infants (Ainsworth, Blehar, Waters, & Wall, 1978), adults (George, Kaplan, & Main, 1984; Main & Goldwyn, 1994), and adult romantic relationships (Hazan & Shaver, 1987). For example, Bartholomew and Horowitz (1991) developed measures

(interview and self-report) that can be used to assess four attachment styles in adult relationships: secure, preoccupied, fearful, and dismissing. Securely attached people have a positive model of both the self and others in their relationships. People with a preoccupied attachment have a negative model of self and a positive model of others in their relationships. Fearfully attached people have a negative model of both self and others in their relationships. People with a dismissive attachment have a positive model of self and a negative model of others in their relationships. Throughout this paper, we refer to models derived from adult relationship attachment measures as the attachment self-model and the attachment other-model, in order to distinguish them from variables that tap global views of the self and others.

Researchers have subsequently determined that dimensions similar to self- and other-models, attachment anxiety and attachment avoidance, respectively, underlie all attachment measures (e.g., Bartholomew & Shaver, 1998; Brennan, Clark, & Shaver, 1998; Fraley, Waller, & Brennan, 2000). Regardless of how researchers examine the attachment dimensions, results have supported many of Bowlby's (1969, 1973) predictions regarding the development of internal working models. In support of Bowlby's (1973) contention that the internal working models of the self and others are logically independent, Bartholomew and Horowitz (1991) found that, although the majority of their participants had models of self and others that were congruent in valence (i.e., secure and fearful attachment styles), other participants demonstrated different valences in their models of self and others (i.e., preoccupied and dismissing attachment styles). Their research shows that models of self and others can vary independently and that each is an important part of a person's attachment orientation.

For the present investigation, it is important that these models should predict general beliefs and feelings about the self and others that do not necessarily arise from the personal relationships in which attachment

models are based. For example, according to Bowlby (1969, 1973), a positive internal working model of the self provides a secure base to explore and pursue other endeavors. This hypothesis that attachment models influence more global evaluations of the self has been supported by findings that people who possess a positive attachment self-model indicate higher self-esteem and self-acceptance (e.g., Bartholomew & Horowitz, 1991; Collins & Read, 1990; Griffin & Bartholomew, 1994a, 1994b; Murray, Holmes, Griffin, Bellavia, & Rose, 2001). Other research (Carnelley, Pietromonaco, & Jaffe, 1994; Griffin & Bartholomew, 1994a, 1994b) has found that a positive attachment self-model is also negatively associated with psychological distress.

Similarly, a positive-attachment model of others should predict beliefs and feelings about others in general (e.g., colleagues and strangers), if, as Bowlby (1969, 1973) predicted, our relationships provide the most powerful basis for forming internal working models of others. Consistent with this view, findings of past research indicate that people with a positive attachment other-model expect positive intentions in others (Feeney & Noller, 1990; Hazan & Shaver, 1987) and possess positive beliefs (e.g., trust) about others in general (Collins & Read, 1990; Cozzarelli et al., 2000; Mikulincer, 1998).

Nonetheless, positive expectations and beliefs about others are only a sample of important associates of a positive attachment model of others. Another important potential associate is humanity-esteem or a global evaluation of others in general. Global evaluations of others may be an important associate of a positive-attachment model of others, because, as described below, they should summarize more specific facets (just as attitudes in general summarize more specific cognitions, feelings, and behaviors; Eagly & Chaiken, 1993). That is, a global evaluation of others should reflect specific beliefs, feelings, and past behaviors that are associated with others. Yet, no research has examined how the attachment other-model relates to a global

evaluation of others. This evaluative component was the focus of our studies.

Because none of the past associates of the attachment other-model directly tap a global evaluation of others, the attachment other-model has not been examined in the same way as the attachment self-model (i.e., with regard to its ability to predict an overall attitude toward others outside the context of relationships). If models of the self and others were both examined as global evaluations, researchers could test the distinctiveness of the attachment models. That is, does the attachment model of self account for unique variance in self-esteem after controlling for the attachment model of others? Similarly, does the attachment model of others account for unique variance in humanity-esteem after controlling for the attachment model of self? If these questions are answered in the affirmative, the results would indicate that the attachment models have distinct relations to global evaluations of the self and others.

Griffin and Bartholomew (1994a, 1994b) have previously indicated the importance of using such evidence to establish the construct validity of the attachment measures. Their research found support for Bowlby's (1973) hypothesis regarding the extent to which the internal working models reflect separate evaluations of the self and others. In particular, they found that the attachment self-model uniquely predicted a positive self-concept (i.e., high self-esteem and self-acceptance and low levels of distress) and that the attachment other-model uniquely predicted positive interpersonal functioning (i.e., sociability and warmth). Their measure of self-esteem directly tapped global evaluations of the self, whereas their measures of interpersonal functioning tapped specific orientations toward people in the participants' environment. Because they did not assess global evaluations of people in general, they were not able to examine whether there are distinct relations between the models of self and others and global evaluations of the self and others. We extend this and other research (e.g., Collins & Read, 1990; Cozzarelli et al., 2000) by

examining fully the unique relations between attachment models of self and others and global evaluations of the self and others.

Assessing Humanity-Esteem

Perhaps one reason why past research has not examined the relation between attachment models of others and humanity-esteem is that the latter measure has not been developed and validated. The need for a measure of humanity-esteem was made evident by self-categorization theory (e.g., Turner, 1985; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; Turner, Oakes, Haslam, & McGarty, 1994). Self-categorization theory suggests that people can define themselves as unique individuals (personal identity), as members of a particular group (social identity), or as members of humanity (human identity). Furthermore, self-categorization theory postulates that all three levels of categorization are important and interrelated, such that the personal identity is included in the social and human identity and the social identity is included in the human identity.

Researchers have conceptualized evaluations of the personal identity and social identity in terms of overall favorability toward the self and one's social group using established measures of self-esteem (e.g., Fleming & Courtney, 1984; Fleming & Watts, 1980; Robins, Hendin, & Trzesniewski, 2001; Rosenberg, 1989) and collective self-esteem (e.g., Luhtanen & Crocker, 1992), respectively. However, until now, a measure of overall favorability toward humanity has not existed. In the past, researchers have conceptualized evaluations of the human identity in terms of specific beliefs (e.g., trust) about human beings (e.g., Rosenberg, 1956; Wrightsman, 1992). In fact, Wrightsman (1991) acknowledged the fact that the existing measures of specific beliefs toward people all tap beliefs about the *trustworthiness* of people in some way. General positive or negative evaluations have not been assessed.

There is empirical precedent for believing that a general attitude toward humanity

should differ from specific beliefs about human nature. For example, past research (e.g., Marsh, 1986; Rosenberg, 1979) has found that specific and global self-esteem are distinct. (A similar model also exists for specific and general values; see Cantril, 1932.) Also, researchers have suggested that attitudes, in general, consist of emotions and past behavior, in addition to beliefs (e.g., Katz & Stotland, 1959; Rosenberg & Hovland, 1960; Triandis, 1971; Zanna & Rempel, 1988). Therefore, specific beliefs about human nature should explain only some of the variance in humanity-esteem. Part of the remaining unexplained variance in humanity-esteem should be explained by past behavior and emotions.

An interesting implication of the self-categorization perspective is that humanity-esteem should reflect not only evaluations of the self, but also evaluations of individuals outside the self, including outgroup members. As a result, self-esteem and humanity-esteem should be related, but not highly. There should be a part of humanity-esteem that is based on thoughts and feelings about others, such as those subsumed within the attachment model of others. These hypotheses can be tested using the Humanity-Esteem Scale, which we recently constructed (Luke & Maio, 2004). Unlike previous measures that assess specific beliefs about people (Rosenberg, 1956; Wrightsman, 1992), this new measure focuses on general evaluations of humanity.

We have shown that the global humanity-esteem construct is unidimensional and that the Humanity-Esteem Scale possesses good construct validity (Luke & Maio, 2004; Luke, Maio, & Carnelley, 2002). For example, consistent with self-categorization theory (e.g., Turner, 1985; Turner et al., 1987, 1994), people who have high humanity-esteem possess high self-esteem and high collective self-esteem. In addition, and consistent with the contention that people affiliate with others whom they like, people who have high humanity-esteem possess high levels of extraversion. Supporting the measure's discriminant validity, humanity-esteem is uncorrelated with cognitive motivation and

cognitive style. Perhaps most importantly, the measure of humanity-esteem is strongly related to perceptions of the extent to which people in general possess a variety of traits and values and with emotions felt toward people in general (Luke, 2003). Thus, humanity-esteem is more than just specific beliefs about people. Just as attitudes in general summarize specific beliefs and feelings, humanity-esteem summarizes beliefs and (especially) feelings about people in general.

Potential antecedents and consequences of humanity-esteem have been examined. We found that media images of people upholding social values increase humanity-esteem, whereas media images of people threatening social values decrease humanity-esteem (Luke & Maio, 2004). With regard to consequences, both manipulated and measured humanity-esteem predict intergroup bias (Luke & Maio, 2004), such that people with high humanity-esteem exhibit less intergroup bias than people with low humanity-esteem. Therefore, the Humanity-Esteem Scale possesses good construct validity and predicts important social variables.

Another potential antecedent of humanity-esteem should be attachment experiences. Our prediction is consistent with Bowlby's (1973) hypothesis that one's experiences and expectations for an attachment figure's reliability will influence one's expectations for attachment figures and the benevolence of others in general because humanity-esteem summarizes a variety of specific beliefs about and feelings toward others (Luke, 2003). In other words internal mental representations of early attachment experiences represent our first attempt to make sense of and predict others' behavior. These working models are carried forward and influence how we judge humanity.

Attachment experiences as an antecedent to humanity-esteem has not yet been examined and is the focus of the present research. Study 1 addresses this issue by examining the ability of the attachment self-model and the attachment other-model to predict global evaluations of the self and others.

Study 2 extends the analysis to include the role of early attachment experiences in determining models of self and others.

Study 1

By including extant measures of self-esteem (Fleming & Courtney, 1984; Rosenberg, 1989) and the Humanity-Esteem Scale (Luke & Maio, 2004) in the present research, we were able to examine the ability of the attachment self-model and the attachment other-model to predict global evaluations of the self *and* others. We anticipated a small but significant relation between self-esteem and humanity-esteem because self-categorization theory (e.g., Turner, 1985; Turner et al., 1987, 1990) predicts that the different levels of the self are intertwined. In addition, drawing from attachment theory and research (e.g., Bowlby, 1969, 1973; Cozzarelli et al., 2000) and self-categorization theory (e.g., Turner, 1985; Turner et al., 1987, 1994), we expected that the attachment model of the self would uniquely predict self-esteem and that the attachment model of others would uniquely predict humanity-esteem.

Method

Participants and procedure

Participants were 140 undergraduates (117 women and 23 men) who received course credit or were paid £3.00 for participation. Five additional participants were omitted from the analyses because of failure to follow instructions ($n = 3$), or because they anticipated the nature of the relations between all of the variables examined in this study when probed for suspicion ($n = 2$).

The study utilized a correlational design to examine relations between (a) attachment models of self and others and (b) self-esteem and humanity-esteem. Participants took part individually and were asked to complete Bartholomew and Horowitz's (1991) Relationship Questionnaire, Luke

and Maio's (2004) Humanity-Esteem Scale, and other measures that were not relevant to the study. In addition, one subset of participants ($n = 59$) completed Rosenberg's (1989) Self-Esteem Scale. In another subset of participants ($n = 81$), Fleming and Courtney's (1984) Self-Rating Revised Scale was used to assess self-esteem, rather than the Rosenberg Self-Esteem Scale. These participants ($n = 81$) also completed Fraley et al.'s (2000) Experiences in Close Relationships Revised Questionnaire, as an additional measure of adult attachment. In the second sample, the attachment measures were grouped together and presented in random order. In both samples, the esteem measures were also grouped together and presented in random order. The attachment and esteem measures were presented in counter-balanced order across participants.

Measures

General attachment styles. As we noted above, we used two questionnaires to measure the two attachment dimensions of the self and others. The Relationship Questionnaire (Bartholomew & Horowitz, 1991) contains one-paragraph descriptions of four attachment styles: secure, preoccupied, fearful, and dismissing. Participants indicated the extent to which each description reflects them, using a seven-point scale from -3 ("not at all like me") to $+3$ ("very much like me"). Following the procedures outlined by Griffin and Bartholomew (1994a), we calculated the model of self by subtracting the sum of the endorsements of the two attachment styles that subsume a negative self-model (preoccupied and fearful) from the sum of the ratings of the two attachment styles that subsume a positive self-model (secure and dismissing). The model of others was calculated by subtracting the sum of the endorsements of the two attachment styles that subsume the negative other-model (dismissing and fearful) from the sum of the ratings of the two attachment styles that subsume the positive other-model (secure and preoccupied). In our sample, this procedure revealed a mildly

positive self-model ($M = 1.28$, $SD = 4.55$) and a mildly positive other-model ($M = 0.94$, $SD = 4.34$).

In addition, 81 participants completed a modified version of the Experiences in Close Relationships Revised Questionnaire (Fraley et al., 2000). To modify the scale to reflect attachment relationships with people in general, the word "others" was substituted for the word "partner." This questionnaire consists of two 18-item subscales, reflecting the anxiety and avoidance dimensions of attachment. High scores on the anxiety dimension may reflect a negative self-model, whereas high scores on the avoidance dimension may reflect a negative other-model (see Bartholomew & Shaver, 1998; Griffin & Bartholomew, 1994b). Items from the anxiety subscale include "I often worry that others don't really love me" and "I don't often worry about being abandoned" (reverse-scored). Items from the avoidance subscale include "I find it difficult to allow myself to depend on others" and "I usually discuss my problems and concerns with others" (reverse-scored). Participants responded to each item using a seven-point scale ranging from 1 ("disagree strongly") to 7 ("agree strongly"). After reverse scoring the negatively worded items, total scores for each subscale were derived by averaging the responses across all the items from the subscale. Internal consistency was high for both the anxiety subscale ($\alpha = 0.94$) and avoidance subscale ($\alpha = 0.93$). The subscales revealed moderate levels of attachment anxiety ($M = 3.14$, $SD = 1.09$) and attachment avoidance ($M = 3.05$, $SD = 1.00$).

Self-esteem. The Rosenberg Self-Esteem Scale (Rosenberg, 1989) contains 10 items that tap aspects of respondents' evaluations of themselves. Example items include "On the whole, I am satisfied with myself" and "I wish I could have more respect for myself" (reverse-scored). Participants responded to each item using a seven-point scale ranging from -3 ("strongly disagree") to $+3$ ("strongly agree"). After reverse scoring the negatively worded items, total

scores were derived by averaging the responses across all the items. The internal consistency of this scale was high ($\alpha = 0.90$), and the scale revealed that participants' mean self-esteem was somewhat positive ($M = 1.25$, $SD = 1.03$).

The 36-item Self-Rating Revised Scale (Fleming & Courtney, 1984) contains five subscales, which assess (a) self-regard, (b) social confidence, (c) school abilities, (d) physical appearance, and (e) physical abilities. Participants completed all five subscales, but our focus was on the self-regard subscale, which contains seven items that reflect self-acceptance and global self-esteem (Fleming & Courtney, 1984). Examples of the seven items include "How confident do you feel that someday the people you know will look up to you and respect you?" and "Do you ever think that you are a worthless individual?" (reverse-scored). Participants responded to each item using a seven-point scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"). After reverse scoring the negatively worded items from the self-regard subscale, the items were averaged. The internal consistency of the self-regard subscale was high ($\alpha = 0.87$), and the subscale revealed that participants possessed somewhat positive self-esteem ($M = 4.76$, $SD = 1.11$).

Fleming and Courtney (1984) found evidence that the Rosenberg Self-Esteem Scale and the self-regard subscale measure the same construct. In addition, our principal analyses revealed similar results for both measures. Therefore, to simplify the presentation of our findings, we converted scores on the Rosenberg Self-Esteem Scale and the self-regard subscale to z -scores, enabling us to use the measures interchangeably in one large sample.

Humanity-esteem. The Humanity-Esteem Scale (Luke & Maio, 2004) has two portions.¹ The first portion contains 10 items and taps specific aspects of people's

evaluations of humanity by using items that are similar to those of the Rosenberg's (1989) Self-Esteem Scale. The principal difference between the first portion of the Humanity-Esteem Scale and the Rosenberg Self-Esteem Scale is that the former taps aspects of evaluations of humanity (e.g., satisfaction with humanity and its evolution), rather than aspects of self-esteem (Gurung et al., 2001, have used a similar approach to operationalize esteem for significant others). Examples include, "On the whole, I am satisfied with the evolution of humanity," "I feel human beings have a number of very good qualities," "All in all, I am inclined to regard the human species as a failure" (reverse-scored), and "I wish I could have more respect for humanity in general" (reverse-scored). Participants responded to these items using a seven-point scale ranging from -3 ("strongly disagree") to $+3$ ("strongly agree").

The second portion of the Humanity-Esteem Scale is a single-item measure that directly asks participants to report their global evaluations of humanity. Past research has revealed that a single-item "attitude thermometer" is well suited for assessing global evaluations of groups (e.g., Esses, Haddock, & Zanna, 1993; Esses & Maio, 2002) and that a comparable single-item measure is well suited for assessing global evaluations of the self (e.g., Robins et al., 2001). Consequently, we asked participants to indicate their overall favorability versus unfavorability toward humanity using a nine-point scale ranging from -4 ("extremely unfavorable") to $+4$ ("extremely favorable").

To compute humanity-esteem scores for the first portion of the scale, we reverse-scored the negatively worded items and then computed the mean response across the items. The interrelations among the items were high ($\alpha = 0.80$), and they revealed that participants possessed somewhat positive humanity-esteem ($M = 1.22$, $SD = 0.84$).

Participants also indicated positive humanity-esteem on the second portion of the scale ($M = 2.22$, $SD = 1.36$). The scores on both portions were strongly correlated

1. Copies of the Humanity-Esteem Scale are available from Michelle A. Luke upon request.

Table 1. *Correlations Between the Parental Treatment, Attachment Models, and Esteem Measures*

	SE	HE	MS	MO	AN	AV	FT	MT
Study 1								
SE	—	0.38**	0.53**	0.10	−0.60**	−0.19†		
HE		—	0.27**	0.28**	−0.08	−0.25*		
MS			—	0.09	−0.56**	−0.27*		
MO				—	0.15	−0.57**		
AN					—	0.22*		
AV						—		
Study 2								
SE	—	0.40**	0.37**	0.16*	−0.54**	−0.29**	0.17*	0.09
HE		—	0.12	0.27**	−0.29**	−0.33**	0.13†	0.13†
MS			—	0.07	−0.69**	−0.25**	0.17*	0.12
MO				—	−0.10	−0.64**	0.12	0.16*
AN					—	0.28**	−0.20**	−0.07
AV						—	−0.16*	−0.21**
FT							—	0.39**
MT								—

Note. SE = Self-Esteem; HE = Humanity-Esteem; MS = Model of Self; MO = Model of Other; AN = Anxiety Dimension; AV = Avoidance Dimension; FT = Father Treatment; MT = Mother Treatment. In Study 1, for all of the correlations involving AN and AV, $N = 81$. $N = 140$ for the remaining correlations. In Study 2, $N = 179$ – 183 because not all of the participants completed all of the measures.
† $p < 0.10$. * $p < 0.05$. ** $p < 0.01$.

$[r(138) = 0.73, p < 0.001]$, and we obtained similar results when we examined the 10-item and single item measures separately. To simplify our analyses and to be certain that we assessed global humanity-esteem, we created an index that gave equal weight to the single global item and the mean of the other 10 items. That is, we computed participants' standardized score (z -score) for each portion and then averaged the z -scores.

Results

Possible sex differences were examined for each measure and were found only for attachment avoidance. Men indicated higher

levels of attachment avoidance ($M = 3.64, SD = 1.00$) than women ($M = 2.95, SD = 0.98$) [$t(79) = -2.25, p < 0.05$]. Nevertheless, sex was not included as a variable in the analyses below because there were few men in the sample ($n = 23$) compared to women ($n = 117$), and there were no sex differences on any of the other measures.²

Correlations

The upper panel of Table 1 summarizes the correlations among all of the variables included in Study 1. Consistent with self-categorization theory (e.g., Turner, 1985; Turner et al., 1987, 1994), participants who possessed high self-esteem reported high humanity-esteem. In addition, a positive attachment self-model was associated with low levels of attachment anxiety. Similarly, having a positive attachment other-model was associated with low levels of attachment

2. In both studies, similar results emerged when men were excluded from the analyses. However, these results should be interpreted with caution because there were few men compared to women in both studies. This issue is discussed further in the *General Discussion*.

avoidance. Also, consistent with our hypotheses, participants who indicated a positive attachment self-model possessed high self-esteem, and participants who indicated low levels of attachment anxiety possessed high self-esteem. In addition, participants who indicated a positive attachment other-model possessed high humanity-esteem, and participants who indicated low levels of attachment avoidance possessed high humanity-esteem.

Partial correlations

We also hypothesized that the attachment self-model (or anxiety dimension) and attachment other-model (or avoidance dimension) would independently predict self-esteem and humanity-esteem, respectively. To test these hypotheses, we computed partial correlation coefficients that controlled for either the attachment self-model or the attachment other-model. When controlling for the attachment other-model, the correlation between the attachment self-model and self-esteem remained the same [$r(137) = 0.53, p < 0.001$]. Similarly, when controlling for the avoidance dimension, the correlation between the anxiety dimension and self-esteem remained significant [$r(78) = -0.59, p < 0.001$]. In addition, when controlling for the attachment self-model, the correlation between the attachment other-model and humanity-esteem remained significant [$r(137) = 0.26, p < 0.01$]. Likewise, when controlling for the anxiety dimension, the correlation between the avoidance dimension and humanity-esteem remained significant [$r(78) = -0.24, p < 0.05$].

Discussion

Our principal novel finding was that humanity-esteem was correlated with the attachment other-model and attachment avoidance. In the past, research has examined the relation between the attachment other-model and interpersonal orientation (e.g., interpersonal warmth, sociability; Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994a, 1994b) or a specific type of evaluation, such as trust (Collins &

Read, 1990; Cozzarelli et al., 2000). However, the present study examined the relation between the attachment other-model and overall favorability or unfavorability toward others. The results indicated that the attachment self-model (attachment anxiety) uniquely predicted self-esteem over and above the attachment other-model (attachment avoidance) and that the attachment other-model (attachment avoidance) uniquely predicted humanity-esteem over and above the attachment self-model (attachment anxiety). These findings are consistent with Bartholomew and Horowitz's (1991) proposal that the two internal working models are distinct and with Bowlby's (1973) statement that they are logically independent. They are also consistent with Bowlby's (1973) contention that internal working models of attachment are used as a basis for expectations about the self and others in general.

Study 2

In Study 2, we examined Bowlby's (1969, 1973) theory regarding the development of beliefs and feelings about the self and others. Specifically, we were interested in whether positive perceptions of parental treatment would predict self-esteem and humanity-esteem. Past research has found that people who feel accepted by their parents possess positive evaluations of the self and positive beliefs about others (e.g., Coopersmith, 1981; Gecas & Schwalbe, 1986; Rosenberg, 1989; Stack, 1972, as cited in Wrightsman, 1992; Tafari & Swann, 1995). Therefore, we anticipated that positive parental treatment would predict high self-esteem and humanity-esteem.

More important, we expected that the attachment model of the self would *mediate* the relation between parental treatment and self-esteem and that the attachment model of others would *mediate* the relation between parental treatment and humanity-esteem (Figure 1a). We predicted that the direct relations between parental treatment and self-esteem (Figure 1a; paths c, g) and humanity-esteem (Figure 1a; paths e, j) would become nonsignificant after the

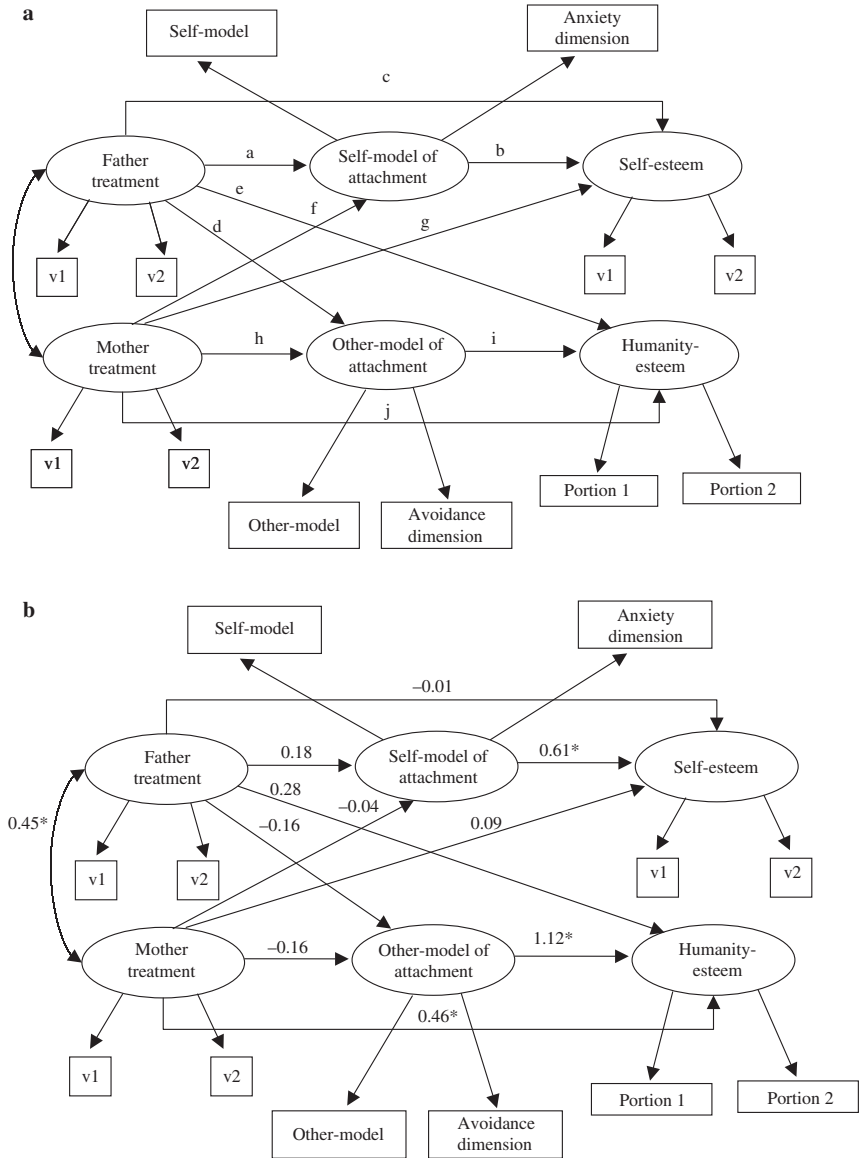


Figure 1. (a) Pictorial representation of the full structural model. The paths from father treatment (mother treatment, self-esteem) to v1 and v2, respectively, represent the sum of the first and second half of the items included in the father treatment subscale (Tafarodi & Swann, 1995; mother treatment subscale, Tafarodi & Swann, 1995; self-regard subscale, Fleming & Courtney, 1984). (b) Full structural model ($N = 173$, $*p < 0.05$). The paths from father treatment (mother treatment, self-esteem) to v1 and v2, respectively, represent the sum of the first and second half of the items included in the father treatment subscale (Tafarodi & Swann, 1995; mother treatment subscale, Tafarodi & Swann, 1995; self-regard subscale, Fleming & Courtney, 1984). The loadings were set to the value of 1 for one indicator of every scale, but both loadings were strong (i.e., > 0.50) and significant in each and every case ($ps < 0.05$). Goodness-of-fit indices: $\chi^2(43) = 563.96$; standardized root-mean-square residual (SRMR) = 2.81; root-mean-square error of approximation (RMSEA) = 0.27.

relations between parental treatment and the attachment models of self and others and the relations between the attachment models of self and others and self-esteem and humanity-esteem are controlled (Figure 1a; paths a, b, d, f, h, i). This last result should occur if, as reflected in our opening quote, attachment models are the vehicles through which early relationships influence later judgments and behavior (Bowlby, 1973). Experiences with parents are thought to influence beliefs regarding our own worthiness of care and expectations for responsiveness from caregivers, and these expectations should, in turn, predict global self-views and views of others.

Prior evidence supports three essential components of this prediction. First, parental treatment predicts the development of attachment models (e.g., Carnelley & Janoff-Bulman, 1992; Carnelley et al., 1994; Cassidy, Kirsh, Scolton, & Parke, 1996; Hazan & Shaver, 1990). Second, consistent with theories that relationships with others affect people's attitudes toward themselves and others (e.g., Bowlby, 1969, 1973; Erikson, 1995; Wrightsman, 1992; see Coopersmith, 1981 for a review), parental treatment predicts self-esteem (e.g., Coopersmith, 1981; Gecas & Schwalbe, 1986; Rosenberg, 1989; Tafarodi & Swann, 1995) and trust in others (Stack, 1972). Third, Study 1 revealed that the attachment models predict self-esteem and humanity-esteem. What remains to be shown is that (a) parental treatment predicts self-esteem *and* humanity-esteem and (b) the relations between parental treatment and self-esteem and humanity-esteem become nonsignificant when the relations between parental treatment and the attachment models and the relations between the attachment models and the target esteem variable (i.e., self-esteem or humanity-esteem) are controlled. These results would indicate that the attachment models mediate the relations between parental treatment and self-esteem and humanity-esteem (Baron & Kenny, 1986).

An interesting issue was whether father treatment and mother treatment would exhibit different relations with the attach-

ment models, self-esteem, and humanity-esteem. Some evidence indicates that father treatment plays a more significant role than mother treatment in the development of a secure attachment style (Levy, Blatt, & Shaver, 1998; Maio, Fincham, & Lycett, 2000), positive friendships (Youngblade & Belsky, 1992), and social competence (Rice, Cunningham, & Mitchell, 1997). On the other hand, researchers have also found that one's mother plays a more significant role than one's father in predicting adult attachment styles (Carnelley & Janoff-Bulman, 1992), positive adult romantic relationship functioning (Carnelley et al., 1994), positive friendships in preschool children (Park & Waters, 1989), and trust in young children (Stack, 1972). Given the conflicting evidence, our analysis of father and mother treatment was exploratory, and we formed no predictions about differences in their relations with the attachment models, self-esteem, and humanity-esteem.

Method

Participants and procedure

Participants were 91 female undergraduates who received course credit and 92 high-school students (46 women, 44 men, and 2 who did not indicate their gender) who volunteered as part of a classroom demonstration of social psychology research. All participants completed the same scales as those in Study 1, except that the self-regard subscale of the Self-Rating Revised Scale (Fleming & Courtney, 1984) was used as the only measure of self-esteem. All of these measures were reliable (α s > 0.80). In addition, participants completed the Parental Treatment Questionnaire (Tafarodi & Swann, 1995) which assesses perceptions of parental support and acceptance. Seven additional participants were omitted from the analyses because they anticipated the nature of the relations between all of the variables examined in this study when probed for suspicion.

Measures

Parental treatment. The Parental Treatment Questionnaire (Tafarodi & Swann, 1995) contains 12 items that tap respondents' perceptions of parental support and acceptance during childhood. The questionnaire contains two 6-item subscales. One subscale reflects perceptions of how respondents' mothers treated them during childhood, whereas the other subscale assesses respondents' perceptions of how their fathers treated them during childhood. Example items include "When I experienced difficulties as a child, my mother (father) was very supportive" and "My mother (father) never seemed to care much how I was doing in my endeavors" (reverse-scored). Participants responded to each item using a five-point scale ranging from -2 ("strongly disagree") to $+2$ ("strongly agree"). After reverse scoring the negatively worded items, total scores for each subscale were derived by averaging the responses across all of the items in the subscale. The internal consistency was high for the father treatment subscale ($\alpha = 0.76$) and mother treatment subscale ($\alpha = 0.85$), and the subscales revealed that participants felt accepted and supported by their fathers ($M = 0.92$, $SD = 0.95$) and mothers ($M = 1.14$, $SD = 0.85$).³

Results

A 2 (sex of participant: women and men) \times 2 (sample type: university students and high-school students) analysis of variance computed on all of the measures revealed no main effects or interaction involving

sex of the participant or sample type. Consequently, sex and sample type were not included as factors in the analyses below.

Correlations and partial correlations

The lower panel of Table 1 shows that, consistent with Study 1, high humanity-esteem, a positive attachment self-model, and low levels of attachment anxiety were associated with high self-esteem. Also, a positive attachment other-model and low levels of attachment avoidance were associated with high humanity-esteem. In addition, the attachment self-model was significantly correlated with attachment anxiety, and the attachment other-model was significantly correlated with attachment avoidance.

Also, consistent with Study 1, the correlation between the attachment self-model and self-esteem remained significant when we controlled for the attachment other-model [$r(178) = 0.36$, $p < 0.001$]. Similarly, the correlation between the anxiety dimension and self-esteem remained significant when we controlled for the avoidance dimension [$r(180) = -0.50$, $p < 0.001$]. In addition, the correlation between the attachment other-model and humanity-esteem remained significant when we controlled for the attachment self-model [$r(178) = 0.26$, $p < 0.001$]. Likewise, the correlation between the avoidance dimension and humanity-esteem remained significant when we controlled for the anxiety dimension [$r(180) = -0.27$, $p < 0.001$].⁴

3. A subset of participants ($n = 95$) also completed measures of parental acceptance and encouragement of independence (Epstein, 1960). In general, Epstein's (1960) scales yielded results similar to those achieved using Tafarodi and Swann's (1995) scales. If we included Epstein's measure in the structural equation models, we would have had very low power to compute these analyses. Therefore, we only discuss Tafarodi and Swann's scales in the results.

4. Supplementary analyses examined the extent to which self-esteem accounts for unique variance independent of humanity-esteem in the attachment self-model and the extent to which humanity-esteem accounts for unique variance independent of self-esteem in the attachment model of others. Most of these partial correlations were significant ($r_s < -0.60$, $p < 0.001$ or $r_s > 0.22$, $p < 0.01$). These findings indicate that the correlations between self-esteem and the attachment self-model (anxiety dimension) are not confounded with humanity-esteem and that the correlations between humanity-esteem and the attachment other-model (avoidance dimension) are not confounded with self-esteem.

Finally, the correlations with perceptions of parental treatment supported the contention that parental treatment predicts attachment models of the self and others and favorability toward the self and others in general. Specifically, participants who reported positive father treatment indicated high self-esteem, a positive attachment self-model, low levels of attachment anxiety, and low levels of attachment avoidance [all $r_s(179) > 0.16$, $p_s < 0.05$]. On the other hand, participants who reported positive mother treatment indicated high humanity-esteem, a positive attachment other-model, and low levels of attachment avoidance (all $r_s(179) > 0.12$, $p_s < 0.05$ using the lopsided test of significance [Abelson, 1995]).

Mediation

Given that perceptions of parental treatment were correlated with the attachment models, self-esteem, and humanity-esteem and that the attachment models were correlated with self-esteem and humanity-esteem, we tested our hypothesis that the attachment models of self and others mediate the relationship between early attachment experiences and evaluations of the self and others. Because we included two different measures of the attachment models of self and others, we used structural equation modeling to examine the direct and indirect relations between parental treatment and self-esteem and humanity-esteem. In our structural equation models, we divided the items from the father treatment subscale of the Parental Treatment Questionnaire (Tafarodi & Swann, 1995), mother treatment subscale of the Parental Treatment Questionnaire (Tafarodi & Swann, 1995), and self-regard subscale of the Self-Rating Revised Scale (Fleming & Courtney, 1984) into two equal groups. The items in these groups were then summed to produce two observed variables that loaded onto latent factors representing father treatment, mother treatment, and self-esteem, respectively (see Fletcher, Simpson, Thomas, & Giles, 1999 for a similar procedure). The attachment self-model and the anxiety dimension were

used as joint indicators of the latent self-model. The attachment other-model and the avoidance dimension were used as joint indicators of the latent other-model. The two portions of the Humanity-Esteem Scale served as indicators of humanity-esteem.

We initially examined the full structural model: father treatment and mother treatment served as the independent variables, the attachment self-model and attachment other-model served as the mediating variables, and self-esteem and humanity-esteem served as the dependent variables. However, as shown in Figure 1b, this model did not yield a good fit [$\chi^2(43, N = 173) = 562.96$, $p < 0.001$, standardized root-mean-square residual (SRMR) = 2.81, root-mean-square error of approximation (RMSEA) = 0.27]. According to Hu and Bentler (1999), fit is good when the SRMR is near 0.08 and the RMSEA is near 0.06. This lack of fit may have occurred because the full model contained too many latent variables for our size of sample and number of indicators. Consequently, we used two separate structural equation models, one for each of the attachment models and the corresponding esteem variables.

First, we examined the structural equation model for the attachment self-model and self-esteem. A model that included separate latent factors to represent father treatment and mother treatment yielded good fit on the SRMR index [$\chi^2(14, N = 173) = 39.40$, $p < 0.001$, SRMR = 0.00], although the value of RMSEA (0.10) did not reach 0.06. In addition, mother treatment was not significantly related to the attachment self-model ($\beta = -0.06$, ns). Therefore, we computed a separate structural equation model that included only father treatment as a predictor of the attachment self-model and self-esteem. As shown in Figure 2, this model yielded optimal fit [$\chi^2(6, N = 173) = 3.25$, ns , SRMR = 0.00, RMSEA = 0.00]. Positive father treatment was associated with a more positive attachment model of the self, which predicted high self-esteem, and the direct relation between father treatment and self-esteem became marginally significant when the self-model served as a

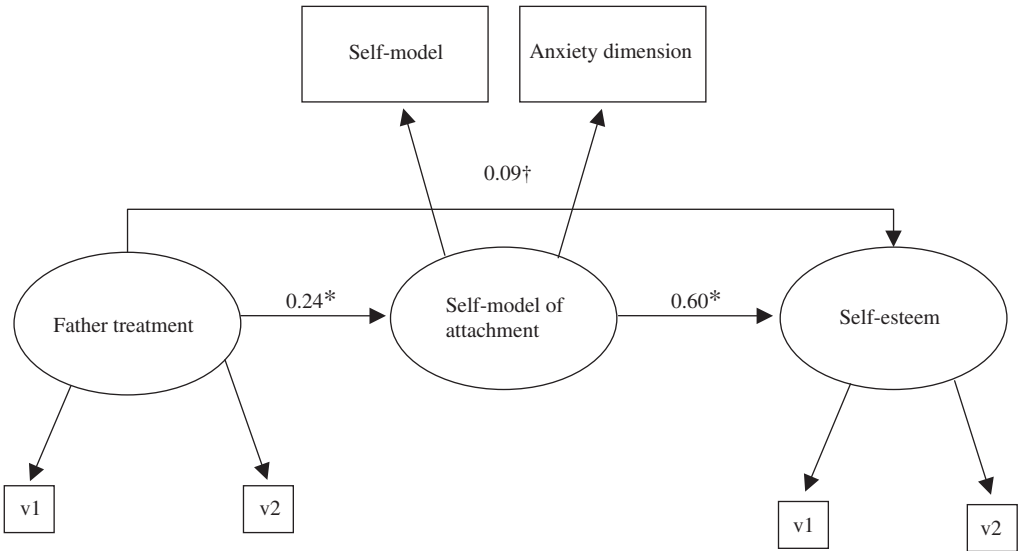


Figure 2. Structural model for the mediating role of the self-model of attachment on the relation between father treatment and self-esteem ($N = 173$, $\dagger p < 0.10$, $*p < 0.05$). The paths from father treatment (self-esteem) to v1 and v2, respectively, represent the sum of the first and second half of the items included in the father treatment subscale (Tafarodi & Swann, 1995; self-regard subscale, Fleming & Courtney, 1984). The loadings were set to the value of 1 for one indicator of every scale, but both loadings were strong (i.e., > 0.50) and significant in each and every case ($ps < 0.05$). Goodness-of-fit indices: $\chi^2(6) = 3.25$; standardized root-mean-square residual (SRMR) = 0.00; root-mean-square error of approximation (RMSEA) = 0.00.

mediator. Furthermore, when we removed the path from the attachment self-model to self-esteem and compared it to the fit of the model with this path, the mediation model was significantly better [$\chi^2\Delta(1) = 48.66$, $p < 0.001$]. In addition, consistent with Baron and Kenny's (1986) criteria for mediation, the path coefficient from father treatment to self-esteem was substantially reduced (from 0.29 to 0.09) when the attachment self-model was entered as a mediating variable ($z = 1.92$, $p < 0.06$).

Next, we examined the structural equation model for the attachment other-model and humanity-esteem. The model that included two separate latent factors to represent father treatment and mother treatment again yielded good fit on the SRMR index [$\chi^2(14, N = 173) = 45.81$, $p < 0.001$, SRMR = 0.01], although the value of RMSEA (0.12) did not reach 0.06.

In addition, father treatment was not significantly related to the attachment other-model ($\beta = 0.08$ ns). Therefore, we computed a separate structural equation model in which mother treatment served as the only predictor of the attachment model of other and humanity-esteem. As shown in Figure 3, this model yielded excellent fit [$\chi^2(6, N = 173) = 5.66$, ns, SRMR = 0.01, RMSEA = 0.00]. Positive mother treatment was associated with a positive attachment model of others, which predicted higher humanity-esteem, and the direct relation between mother treatment and humanity-esteem was nonsignificant when the other-model served as a mediator. Furthermore, when we removed the path from the attachment other-model to humanity-esteem and compared it to the fit of the model with this path, the mediation model was significantly better, [$\chi^2\Delta(1) = 18.36$,

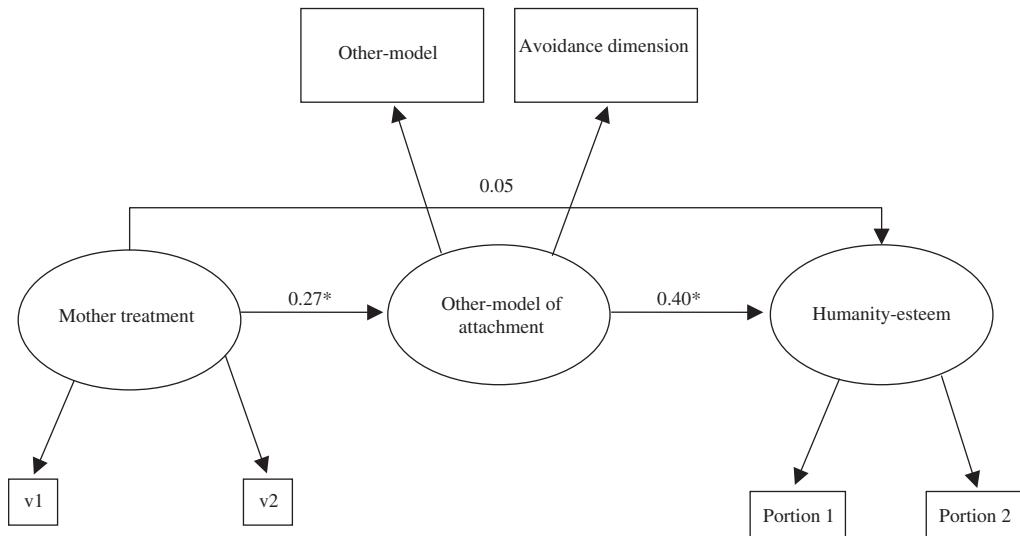


Figure 3. Structural model for the mediating role of the other-model of attachment on the relation between mother treatment and humanity-esteem ($N = 173$, $*p < 0.05$). The paths from mother treatment to v1 and v2, respectively, represent the sum of the first and second half of the items included in the mother treatment subscale (Tafarodi & Swann, 1995). The loadings were set to the value of 1 for one indicator of every scale, but both loadings were strong (i.e., > 0.50) and significant in each and every case ($ps < 0.05$). Goodness-of-fit indices: $\chi^2(6) = 5.66$; standardized root-mean-square residual (SRMR) = 0.01; root-mean-square error of approximation (RMSEA) = 0.00.

$p < 0.001$]. In addition, consistent with Baron and Kenny's (1986) criteria for mediation, the path coefficient from mother treatment to humanity-esteem was substantially reduced (from 0.27 to 0.05) when the attachment other-model was entered as a mediating variable ($z = 2.08$, $p < 0.05$).⁵

Discussion

As in Study 1, the attachment model of self (and the anxiety dimension) uniquely predicted self-esteem, and the attachment

model of others (and the avoidance dimension) uniquely predicted humanity-esteem. However, the principal aims of Study 2 were to examine the relations between early attachment experiences, attachment models, self-esteem, and humanity-esteem and to test whether the attachment models of self and others mediate the relations between early attachment experiences and esteem for the self and others. The structural equation models supported our prediction that the relations between parental treatment and esteem for the self and others are mediated by the attachment models of self and others. It is interesting, however, that the treatment from one's father was the primary predictor of the self-model and self-esteem, whereas treatment from one's mother was the primary predictor of the other-model and humanity-esteem. These findings are important because they suggest that each parent has a different impact on beliefs about the self and others,

5. Two additional structural models were examined. The models were similar to the ones presented in Figures 2 and 3, except that both attachment models were used as simultaneous mediators of the effects of father treatment and mother treatment on self-esteem and humanity-esteem. Regardless of whether father treatment or mother treatment was the sole exogenous variable, these models yielded weaker fit than the original models presented in Figures 2 and 3.

and this possibility is discussed in further detail in the *General Discussion*.

General Discussion

Across two studies, we replicate past research by demonstrating that the attachment self-model reliably predicts a global evaluation of the self (self-esteem; Bartholomew & Horowitz, 1991; Collins & Read, 1990; Griffin & Bartholomew, 1994a, 1994b; Murray et al., 2001). In addition, we extend past research by demonstrating that the attachment other-model reliably predicts a global evaluation of people in general.

The data in both studies enabled us to examine the relation between the attachment self-model and self-esteem and the relation between the attachment other-model and humanity-esteem, while controlling for the attachment self-model. These results are best summarized using a single structural equation model for the participants who completed the self-regard subscale of the Self-Rating Revised Scale (Fleming & Courtney, 1984) across both studies. This model includes a path from the attachment self-model to self-esteem and a path from the attachment other-model to humanity-esteem. In addition, the model includes a path from the attachment self-model to humanity-esteem, because self-categorization theory (e.g., Turner, 1985; Turner et al., 1987, 1994) predicts that an evaluation of humanity includes an evaluation of the self (see Figure 4). This model yielded a near-adequate fit [$\chi^2(14, N=254)=36.49, p<0.001, SRMR=0.02, RMSEA=0.08$] (Hu and Bentler, 1999, recommend that RMSEA be "near" 0.06.) More important, the paths from (a) the attachment self-model to self-esteem, (b) the attachment other-model to humanity-esteem, and (c) the attachment self-model to humanity-esteem were significant (see Figure 4).

Also, consistent with past research (e.g., Coopersmith, 1981; Gecas & Schwalbe, 1986; Rosenberg, 1989; Tafarodi & Swann, 1995), we found that perceptions of father treatment predict the attachment self-model and self-esteem. A novel finding was that

perceptions of mother treatment predict the attachment other-model and humanity-esteem. It is interesting that father treatment and mother treatment were differently related to the attachment models, self-esteem, and humanity-esteem. In the past, researchers have found that fathers are influential in the development of a secure attachment style (Maio et al., 2000), positive friendships (Youngblade & Belsky, 1992), and social competence (Rice et al., 1997). However, other researchers have found that mothers play a more significant role in the prediction of attachment styles, relationship functioning, and positive friendships (Carnelley & Janoff-Bulman, 1992; Carnelley et al., 1994; Park & Waters, 1989).

It is possible that our findings occurred because parental treatment may reflect the parents' own beliefs about themselves and others. Past research has shown that men traditionally have more positive specific beliefs about themselves than do women (e.g., Beyer, 1990; Marsh, 1990) and that women have more positive beliefs about others than do men (e.g., Luke, & Maio, 2004; Wrightsman, 1992). These differential beliefs are consistent with the finding that men see themselves as separate from others, whereas women see themselves as connected to others (see Cross & Madson, 1997 for a review). There is also evidence that this differential emphasis on the individual versus community emerges partly from traditional sex roles (Eagly, 1987). As a result of their sex-role learning, fathers' treatment of their children may reflexively highlight the importance of the self within the context of a relationship, whereas mothers' treatment of their children may highlight the importance of others within the context of a relationship. For example, fathers might tend to ask their children how they responded to bullying at school (e.g., "Did you stick up for yourself?"), whereas mothers might tend to ask their children about how others responded to bullying (e.g., "Did the teacher intervene?"). These questions may shape the attachment models of the self and others and evaluations of oneself and others outside the relationship

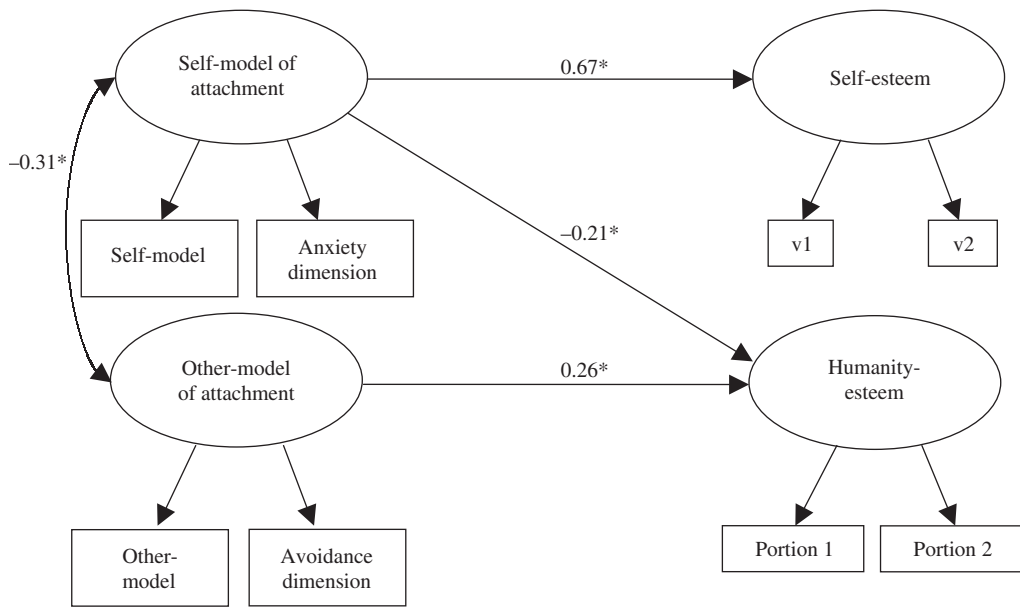


Figure 4. Structural model for the self-model of attachment as a predictor of self-esteem and both attachment models as simultaneous predictors of humanity-esteem ($N = 254$, $*p < 0.05$). The paths from self-esteem to v1 and v2, respectively, represent the sum of the first and second half of the items included in self-regard subscale (Fleming & Courtney, 1984). The variance for each factor was set to the value of 1, but both loadings were strong (i.e., >0.50) and significant in each and every case ($ps < 0.05$). In this analysis, high scores for the other-model and humanity-esteem represent low levels of each construct (i.e., scores computed from the Bartholomew and Horowitz, 1991, measure loaded negatively, whereas scores computed from the Fraley et al. (2000) measure loaded positively on the other-model latent variable and two portions of the Humanity-Esteem Scale loaded negatively on the humanity-esteem latent variable). Goodness-of-fit indices: $\chi^2(14) = 36.49$; standardized root-mean-square residual (SRMR) = 0.02; root-mean-square error of approximation (RMSEA) = 0.08.

context. These post-hoc explanations for our findings are speculative. It will be important for future research to replicate these findings and examine more closely the different roles that mothers and fathers may play in the development of self and other models of attachment.

Another possibility is that the difference in the availability of fathers and mothers is responsible for the separate effects of father and mother treatment. Mothers may form the basis for the model of others because they are typically the most important “other” from birth onward. In fact, past research has shown that, on average fathers spend less time with their offspring than mothers (Lamb & Oppenheim, 1989). Furthermore,

when fathers are available, they are more likely to play with their offspring than engage in caretaking functions (Lamb, 1977, 1981; Yogman, 1982). Because fathers in general are less likely to be consistently available, children may believe that the availability of their father may have something to do with their own behavior and use this to draw inferences about the self.⁶ Future research should examine this possibility.

There are a few methodological issues that should be considered when interpreting these results. First, although we obtained no

6. We thank an anonymous reviewer for mentioning this possibility.

significant differences between men and women across both studies, it is difficult to determine whether our findings are limited to women only because the majority of participants were women. Despite similar patterns of correlations for men and women (see Tables 2 and 3), it may be possible that the relations between the variables examined in these studies are different for men than women. In fact, because past research has found that people describe an opposite-sex parent more favorably than a same sex parent (Hazan & Shaver, 1987) and that the opposite-sex parent has more of an influence on self-esteem than the same sex parent (Winefield, Goldney, Tiggeman, & Winefield, 1990), it is possible that father treatment and mother treatment are differentially related to the attachment models, self-esteem, and humanity-esteem for the separate sexes. Future research should examine this possibility by using samples

that are more equal in their distribution of men and women.

Second, although our results are consistent with Bowlby's (1973) theory regarding the influence of early attachment experiences, the data are correlational and do not establish causality. Related to this issue, the measure of parental treatment is a retrospective recollection of feeling accepted and supported by parents, which may or may not reflect actual parental behavior experienced in childhood (Tafarodi & Swann, 1995). Furthermore, we conducted additional analyses testing two models that were similar to the models presented in Figures 2 and 3, except that the esteem measures served as the mediator (rather than the outcome variable) and the attachment measures served as the criterion (rather than the mediator). These models exhibited the same degree of fit as the original models, which were more strongly based

Table 2. *Correlations Between the Parental Treatment, Attachment Models, and Esteem Measures (Women Only)*

	SE	HE	MS	MO	AN	AV	FT	MT
Study 1								
SE	—	0.40**	0.55**	0.13	−0.63**	−0.20†		
HE		—	0.25*	0.23**	0.01	−0.06		
MS			—	0.06	−0.55**	−0.20†		
MO				—	0.14	−0.61**		
AN					—	0.11		
AV						—		
Study 2								
SE	—	0.33**	0.39**	0.15†	−0.55**	−0.27**	0.16†	0.14
HE		—	0.19*	0.30**	−0.32**	−0.33**	0.20*	0.18*
MS			—	0.12	−0.75**	−0.37**	0.22*	0.22*
MO				—	−0.17†	−0.62**	0.18*	0.21*
AN					—	0.35**	−0.20*	−0.15†
AV						—	−0.23*	−0.28**
FT							—	0.44**
MT								—

Note. SE = Self-Esteem; HE = Humanity-Esteem; MS = Model of Self; MO = Model of Other; AN = Anxiety Dimension; AV = Avoidance Dimension; FT = Father Treatment; MT = Mother Treatment. In Study 1, for all of the correlations involving AN and AV, $N = 69$. $N = 117$ for the remaining correlations. In Study 2, $N = 137$.
† $p < 0.10$. * $p < 0.05$. ** $p < 0.01$.

Table 3. *Correlations Between the Parental Treatment, Attachment Models, and Esteem Measures (Men Only)*

	SE	HE	MS	MO	AN	AV	FT	MT
Study 1								
SE	—	0.45*	0.59**	-0.01	-0.73**	-0.59*		
HE		—	0.32	0.43**	-0.22	-0.65*		
MS			—	0.22	-0.58*	-0.51†		
MO				—	0.17	-0.46		
AN					—	0.66*		
AV						—		
Study 2								
SE	—	0.59**	0.31*	0.24	-0.55**	-0.42**	0.20	-0.12
HE		—	-0.05	0.17	-0.21	-0.29†	-0.05	0.03
MS			—	-0.09	-0.54**	-0.06	-0.02	-0.25†
MO				—	-0.12	-0.70**	-0.16	0.00
AN					—	0.08	-0.15	0.22
AV						—	0.08	-0.08
FT							—	0.11
MT								—

Note. SE = Self-Esteem; HE = Humanity-Esteem; MS = Model of Self; MO = Model of Other; AN = Anxiety Dimension; AV = Avoidance Dimension; FT = Father Treatment; MT = Mother Treatment. In Study 1, for all of the correlations involving AN and AV, $N = 12$. $N = 23$ for the remaining correlations. In Study 2, $N = 44$.

† $p < 0.10$. * $p < 0.05$. ** $p < 0.01$.

on extant theory (see *Introduction*). Despite the theoretical basis for accepting the former models, the success of the alternative models suggests that different relations among these variables may operate simultaneously. For example, it is quite possible that a positive attachment model of others facilitates the affective, cognitive, and behavioral experience of high humanity-esteem, which in turn sets the stage for more positive attachments to others in relationships. To disentangle the causal relationships, researchers could manipulate each of these variables to examine these effects by priming positive or negative parental treatment, attachment models of the self and others, and/or global views of the self and others (see Rowe & Carnelley, 2003 for a discussion of this procedure).

It is interesting that the associations between self-esteem and the attachment self-model and the anxiety dimension were generally stronger than the associations between the humanity-esteem and the

attachment other-model and the avoidance dimension. These results are consistent with prior suggestions that it is easier to operationalize the attachment self-model than the attachment other-model (Griffin & Bartholomew, 1994a; Klohnen & John, 1998). Fraley et al. (2000) have taken a step toward adequately assessing the other-model, because they computed an item-response analysis on all available attachment questionnaires (Brennan et al., 1998; Collins & Read, 1990; Griffin & Bartholomew, 1994a; Simpson, 1990) to devise their scale. However, even this approach is limited by the conceptualization of the model of others. The biggest impediment to the conceptualization of the attachment model of others and global evaluations of others is that the "others" may vary from close romantic partners or relatives to strangers, and this variation in targets is greater than what occurs when focusing on the self as a target. Thus, these models may inherently be more difficult to assess.

Regardless of the difficulties capturing the attachment models of self and others, our data provide evidence that these models mediate the relations between parental treatment and self-esteem and humanity-esteem. These analyses are consistent with the proposal that attachment models are vital constructs through which early relationships affect our global views of the self, others, and the world (Bowlby, 1969, 1973). For this reason, it is important to explore other possible antecedents of the attachment models of self and others, self-esteem, and humanity-esteem, such as the effects of peer treatment. In a review of past literature, Harris (1995) discusses the importance of peer groups and downplays the importance of parents in the development and modification of a child's personality. Furthermore, Fraley and Davis (1997) found that peers served as important attachment figures among undergraduates. If this hypothesis is correct, peer treatment may be another important predictor of attachment models, self-esteem, and humanity-esteem.

Future research should also consider the possibility that humanity-esteem mediates the relations between attachment style and other important social variables. For example, past research has shown that people with a secure attachment style exhibit low amounts of antisocial behavior (e.g., Bowlby, 1944; Rosenstein & Horowitz, 1996), and we suggest that humanity-esteem may mediate this relationship. Indeed, other research has shown that people who commit extreme acts of violence against others tend to be manipulative, show a lack of remorse, and feel loosely connected to others (Hare, 1996). Similarly, McHoskey, Worzel, and Szyarto (1998) found that psychopathy was

related to Machiavellianism and narcissism in a nonclinical sample. These findings go hand-in-hand with our findings that people who possess low humanity-esteem feel less interconnected with others and are more manipulative. People low in humanity-esteem are also more willing to discriminate against people from other social groups, including groups based on gender, ethnicity, and nationality (Luke & Maio, 2004). Therefore, the links between attachment patterns and antisocial behavior might be partly attributable to low humanity-esteem, which stems, in part, from the quality of relationships with one's parents while growing up. Indeed, it is possible that links between many variables (e.g., exposure to violence) and antisocial behavior are mediated by the effects of these variables on humanity-esteem, which is consistent with theories that such behaviors often result from a dehumanization of targets (Leyens et al., 2000, 2001). These possibilities underscore the potential theoretical importance of the humanity-esteem construct.

The present studies yield valuable knowledge about the content of the internal working models by finding that attachment models of the self predict self-esteem independently of attachment models of others and that attachment models of others predict humanity-esteem independently of attachment models of the self. Moreover, the attachment models of self and others mediate the relations between early attachment experiences with parents and self-esteem and humanity-esteem. Together, these results provide new evidence that attachment experiences and models of self and others predict how we view ourselves and human beings as a group.

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