Attachment Styles and Contingencies of Self-Worth

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Previous research on attachment theory has focused on mean differences in level of self-esteem among people with different attachment styles. The present study examines the associations between attachment styles and different bases of self-esteem, or contingencies of self-worth, among a sample of 795 college students. Results showed that attachment security was related to basing self-worth on family support. Both the preoccupied attachment style and fearful attachment style were related to basing self-worth on physical attractiveness. The dismissing attachment style was related to basing self-worth less on others' approval, family support, and God's love.

Keywords: *attachment styles; self-esteem; contingencies of self-worth*

Humans are inherently social creatures. As infants, people rely on others to feed them, care for them, and comfort them in times of distress. In addition to satisfying basic physical needs for safety and security, people look to others to fulfill psychological needs for love and validation. Attachment theory, as proposed by Bowlby (1973, 1980, 1982), provides a compelling framework for understanding why people form close emotional bonds with others. Specifically, Bowlby proposed that people seek attachments with others to regulate emotional distress and to experience a sense of "felt security" (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973, 1980, 1982; Sroufe & Waters, 1977). From interactions with primary caregivers, children develop internal "working models," or mental representations of the self and others that influence emotion regulation, behavior, and the development of personality (Ainsworth et al., 1978; Bowlby, 1973). Mental models of the self represent beliefs about one's lovability and worthiness of care and attention; mental models of others reflect expectations about how emotionally available and responsive others will be toward one's needs (Bartholomew & Horowitz, 1991; Collins, 1996; Collins & Read, 1990).

The mental model of self is highly correlated with global self-esteem in adults; people with a positive mental model of self (e.g., secure individuals) have relatively higher self-esteem than those with a negative mental model of self (e.g., anxious-ambivalent individuals) (Bylsma, Cozzarelli, & Sumer, 1997; Collins & Read, 1990; Feeney & Noller, 1990; Griffin & Bartholomew, 1994; Mikulincer, 1995). Although knowledge of mean differences in level of self-esteem is informative, focusing just on whether self-esteem is high or low overlooks potentially important conceptual differences in the specific domains on which people with different attachment styles base their self-esteem. The current study uses a newly developed measure of Contingencies of Self-Worth (CSW) (Crocker, Luhtanen, Cooper, & Bouvrette, 2003) to empirically examine associations between attachment styles and bases of self-esteem. Drawing from theory and research on attachment, we predict that people with different attachment styles derive self-esteem from different sources.

Contingencies of Self-Worth

More than a century ago, William James (1890) argued that people seek to achieve success or avoid failure in those areas in which they have staked their self-worth. Research supports James's assertion that there are multiple routes to self-esteem (Brennan & Bosson, 1998; Brennan & Morris, 1997; Coopersmith, 1967; Harter, 1993). Crocker et al. (2003) recently identified seven domains on which college students base their self-esteem: others' approval, appearance, family support, academic competence, virtue, and competition, and God's love. Research has shown that positive and negative life events in domains of contingency influence state self-esteem, mood, and self-evaluative thoughts (e.g., Crocker, Karpinski, Quinn, & Chase, 2003; Crocker & Park, 2003; Crocker, Sommers, & Luhtanen, 2002; Park & Crocker, 2003). These findings suggest that people's bases of self-esteem impact how they think and feel about themselves.

At its core, attachment theory focuses on how early interactions with caregivers shape emotion regulation and feelings of safety (Bowlby, 1973, 1982). For example, secure individuals, who have experienced warm, responsive caregivers, are likely to regulate feelings of security through their close, positive relationships with others, whereas dismissing individuals, who have had relatively cold and unresponsive caregivers, are likely to regulate feelings of security by being less emotionally dependent on others and more self-reliant (Bartholomew, 1990). Although the desire to regulate a sense of security is fundamental, the specific strategies that people use to achieve this end may differ as a function of their attachment history (Bowlby, 1973, 1982). Similarly, we think that people strive to achieve a sense of security by investing self-esteem in domains of contingency; CSWs represent domains that people seek to satisfy to feel worthy and, hence, safe and secure (see Crocker & Park, 2004, for a discussion).

Because attachment styles develop as a result of interpersonal processes, we propose that interpersonally based CSWs are particularly relevant to attachment styles. We define interpersonally based CSWs as domains in which individuals seek validation, love, or support from others. Using this criterion, we focus on others' approval, appearance, family support, and God's love as interpersonal sources of self-esteem that may vary by attachment style.[1] In particular, we think that the specific content of these CSWs may be especially relevant to specific attachment styles. Others' approval CSW refers to self-esteem based on the perceived approval of generalized others, appearance CSW refers to basing self-esteem on one's physical attractiveness, family support CSW reflects self-esteem derived from the care and support of one's family, and God's love CSW represents self-esteem based on feeling loved by God. In addition to these interpersonal CSWs, noninterpersonal sources of self-esteem, such as academic competence (e.g., basing self-esteem on doing well academically), also may be relevant to attachment styles. For example, dismissing individuals base their self-esteem more on self-competence than on their relationships with others (Brennan & Bosson, 1998; Brennan & Morris, 1997). Thus, our approach is to examine both interpersonal and noninterpersonal CSWs as they relate to attachment styles.

Caveat

Before proceeding, we wish to highlight important conceptual differences between the present study and previous work on attachment styles and sources of self-esteem. In particular, research by Brennan and colleagues (Brennan & Bosson, 1998; Brennan & Morris, 1997) has shown that secure individuals tend to base their self-esteem on their positive relationships with others, whereas dismissing individuals are less likely to value others' feedback, deriving self-esteem instead from a sense of competence, mastery, and autonomy. Although these findings suggest that attachment styles are, indeed, related to different bases of self-esteem, we note that Brennan and colleagues' conceptualization differs from our conceptualization of sources of self-esteem. For example, Brennan and Bosson (1998) measured sources of self-esteem using subscales of Ryff's (1989) Psychological Well-Being scale (PWB). Participants rated items pertaining to constructs such as Positive Relations With Others (e.g., "I feel like I get a lot out of my friendships"), Environmental Mastery (e.g., "I am quite good at managing the many responsibilities of daily life"), and Autonomy (e.g., "Being happy with myself is more important to me than having others approve of me"); dismissing individuals scored high on environmental mastery and autonomy, whereas secure individuals scored high on positive relations with others. In our view, these subscales measure domain-specific evaluations and importance ratings, not whether people's self-esteem is invested in a particular domain, which is what the CSW scale measures (Crocker & Wolfe, 2001). In another study, Brennan and Morris (1997) found that self-competence (but not self-liking) predicted dismissing attachment; again, however, self-competence was measured using domain-specific self-evaluations in areas such as intellectual ability, social competence, athletic ability, leadership, and so on, which are not the same as *staking* one's self-worth in a domain; failure in domains of contingency lead to drops in self-esteem (e.g., "My sense of self-worth suffers whenever I don't think I look good"), whereas success in domains of contingency leads to boosts in self-esteem (e.g., "When I think I look attractive, I feel good about myself"). Our conceptualization

of sources of self-esteem therefore represents a more dynamic view in which people's self-esteem depends on satisfying their CSWs rather than just reflecting how well they think they are doing in a specific domain, or how important a domain is to their self-esteem.

Pilot Study[2]

A pilot study was conducted to examine how dependent on others' reactions/behaviors and how unconditional each domain of contingency was perceived to be. The study consisted of 88 participants in a social psychology class (23 men, 65 women; 70.5% White) who rated the extent to which satisfying each contingency depended on others' reactions and behaviors and how unconditional each domain was using a 1 (*not at all*) to 7 (*very much*) scale. Separate repeated-measures ANOVAs with contingency as a repeated-measures factor with seven levels were conducted on each dimension. Family support and God's love were rated as the least dependent on others' reactions; others' approval and appearance were rated as the most dependent (see Table 1). Academic competence, competition, and virtue were rated as being somewhat dependent on others. For ratings of the conditionality of the domain, family support was rated as the most unconditional, followed by God's love, virtue, appearance, others' approval, and then academic competence and competition (which did not differ significantly from each other). In sum, family support and God's love do not depend very much on others' reactions and behaviors and are relatively unconditional sources of self-esteem. Relative to these CSWs, appearance and others' approval represent more conditional sources of self-esteem that depend on others' validation.

Attachment Styles and Contingencies of Self-Worth

According to Bartholomew's (1990) conceptualization of attachment, attachment styles result from the intersection of positive or negative mental models of the self and others. A positive self-model is characterized by an internalized sense that others will love and care for them; a negative self-model is characterized by anxiety concerning acceptance and rejection in close relationships. A positive model of others is characterized by actively seeking intimacy and support in close relationships; a negative model of others is characterized by avoidance of intimacy (e.g., Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994).

Secure attachment. The ability to give and receive support from others is a hallmark of the secure attachment style; secure people find it relatively easy to get close to others, to depend on others, and have others depend on them. Bowlby (1973, 1982) argued that attachment security is based on a sense of internalized positive regard from a warm, consistently reliable caregiver.

TABLE 1: **Means and Standard Deviations for Contingency Domain Ratings**

Contingency Domain	Dependent on Others	Unconditional
God's love	1.93$_a$ (1.33)	5.71$_a$ (1.83)
Family support	2.21$_a$ (1.33)	6.39$_b$ (.84)
Academic competence	3.56$_b$ (1.52)	3.19$_f$ (1.67)
Competition	3.67$_b$ (1.53)	3.16$_f$ (1.45)
Virtue	3.86$_b$ (1.33)	4.66$_c$ (1.50)
Others' approval	5.13$_c$ (1.40)	3.70$_e$ (1.32)
Appearance	5.14$_c$ (1.49)	4.09$_d$ (1.41)

NOTE: Within columns, means not showing a common subscript differ at $p < .05$ or more according to the Bonferroni method. $Ns = 81$ to 88, depending on missing values.

Research has shown that securely attached people hold positive views of themselves and others (Bartholomew, 1990; Collins, 1996; Mikulincer, 1998a) and that "a positive self model reflects an internalized sense of self-worth that is not dependent on ongoing external validation" (Bartholomew, 1990, p. 251). Developmentally, secure individuals report positive perceptions of their early family relationships (Feeney & Noller, 1990), describe their parents as more benevolent and less punitive (Levy, Blatt, & Shaver, 1998), and show better adjustment in adolescence than do insecurely attached individuals (Cooper, Shaver, & Collins, 1998). Secure attachment translates to a sense of "felt security" (Sroufe & Waters, 1977) or a "sense of a secure base" (Bowlby, 1973), which, in turn, is related to more confidence and assertiveness in social situations (Collins & Read, 1990), increased willingness to explore one's environment (Green & Campbell, 2000), and more self-disclosure, which facilitates the formation of mutually caring relationships (Mikulincer & Nachshon, 1991). Friends of secure individuals also rate them as warm, intimate, confident, and involved in their relationships (Bartholomew & Horowitz, 1991).

Considering that secure individuals have close, mutually supportive relationships with others, it follows that securely attached individuals would base their self-esteem on their positive relations with others (Brennan & Bosson, 1998); indeed, secure individuals report feeling loved, cared for, and supported by their partners (Shaver & Hazan, 1988) and believe that others will be responsive to their needs in times of stress (Hazan & Shaver, 1987). Because secure individuals already possess a sense of security, we predict that they are likely to derive self-esteem from interpersonal sources that do not require ongoing validation from others, such as family support, because this domain represents a source of self-esteem that is interpersonally based, unconditional in nature, and not highly dependent on others' validation. In addition to family support, we predict that God's

love, another interpersonal, relatively unconditional source of self-esteem, may also be related to secure attachment. Support for this prediction comes from research showing that adult secure attachment is associated with secure attachment to God and positive images of God (Kirkpatrick, 1998; Kirkpatrick & Shaver, 1992).

Preoccupied attachment. People with a preoccupied attachment style desire to be completely emotionally intimate with others yet worry that their partners will not want to be as close to them as they would like (Collins & Read, 1990; Feeney & Noller, 1990; Simpson, Rholes, & Nelligan, 1992). Developmentally, preoccupied individuals are likely to have had inconsistent caregivers who were both punitive and benevolent (Levy et al., 1998). As a result of these inconsistent messages of love and rejection, preoccupied individuals internalize a negative mental model of the self and a positive model of others. Bartholomew (1990) contends that negative self-models are associated with anxiety regarding acceptance and rejection in close relationships and that "preoccupied individuals are preoccupied with attachment needs . . . the result is an overly dependent style in which personal validation is sought through gaining others' acceptance and approval" (p. 252). In other words, because preoccupied individuals doubt their worth and value, they look to others for self-validation, positive feedback, and reassurance (Brennan & Bosson, 1998; Mikulincer, 1998a). Not surprisingly, preoccupied individuals' self-esteem tends to fluctuate dramatically in response to perceived approval or rejection from others (Collins & Read, 1990); they have an insatiable desire to gain others' approval by meeting certain standards of worth and value (Bartholomew, 1990). Preoccupied individuals describe themselves as clingy, dependent, needing reassurance, emotional, jealous, and easily upset (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994); their friends concur, rating them as highly emotionally expressive, self-disclosing, and reliant on others (Bartholomew & Horowitz, 1991), which often manifests interpersonally in clingy, hypervigilant, and controlling ways (Mikulincer, 1998a). Because of their heightened concerns over acceptance and rejection, we predict that people with a preoccupied attachment style will be likely to base their self-esteem on interpersonal CSWs that are highly dependent on others' reactions and are relatively conditional in nature. Accordingly, we predict that preoccupied attachment will be associated with the others' approval and appearance CSWs, domains that depend on others' validation and represent relatively unstable, conditional sources of self-worth.

Fearful attachment. The fearful attachment style is characterized by a negative model of the self and a negative model of others (Bartholomew, 1990). Fearful individuals are likely to have had parents that they perceived as rejecting, punitive, and malevolent (Levy et al., 1998). Similar to those with a preoccupied style, fearful individuals desire closeness with others but harbor a deep-seated belief that they are unlovable and unworthy and that others are generally uncaring and rejecting. Accordingly, the fearful style is negatively related to self-disclosure, intimacy, and relying on others (Bartholomew & Horowitz, 1991). In addition, people with a fearful style are likely to exhibit "intimacy anger" and jealousy that can escalate into verbal and physical abuse in close relationships (Dutton, Saunders, Starzomswki, & Bartholomew, 1994). Because of their simultaneous desire for closeness with others but fear of rejection, we predict that fearful individuals are likely to base their self-esteem on others' approval and their appearance—relatively conditional sources of self-esteem that require others' validation yet also make them vulnerable to potential rejection.

Dismissing attachment. Whereas people with a preoccupied or fearful attachment style are highly dependent on the reactions and behaviors of others, people with a dismissing style are uncomfortable with close relationships and prefer not to depend on others. Developmentally, dismissing individuals had caregivers who were unreliable, unresponsive, punitive, and malevolent (Levy et al., 1998). According to Shaver and Hazan (1988), "The avoidant infant or child has learned that interaction with significant others is painful; therefore, intimate interaction, whether in the form of care seeking or care giving, tends to be avoided" (p. 487). Because they lacked warm, available caregivers, dismissing individuals regulate attachment distress by mistrusting others (Feeney & Noller, 1990), maintaining emotional distance from others, showing less interest in forming close relationships, and generally valuing self-reliance and independence more than others' feedback or support (Bowlby, 1982; Brennan & Bosson, 1998; Mikulincer, 1998a; Shaver & Hazan, 1988). For example, dismissing individuals are likely to report never having been in love (Feeney & Noller, 1990), are less effective support seekers (Collins & Feeney, 2000), are less self-disclosing than secure individuals (Mikulincer & Nachshon, 1991), and are more likely to engage in nonintimate sex with casual partners as a way to avoid intimacy (Shaver & Brennan, 1992). In addition, dismissing individuals tend not to be very warm, intimate, or emotionally expressive (Bartholomew & Horowitz, 1991) and score high on measures of interpersonal hostility, coldness, and competitiveness (Bartholomew, 1990; Horowitz, Rosenberg, & Bartholomew, 1993; Mikulincer, 1998b), which further distances them from others.

Because of their positive mental model of self and negative mental model of others, dismissing individuals should be less likely to rely on others as a source of validation or support. Indeed, research shows that dismissing individuals are averse to partner feedback (Brennan & Bosson, 1998) and value self-competence (Brennan & Morris, 1997). Because they value self-competence over relationships, we expect them to base their self-esteem more on academic competence and less on interpersonal sources that depend on others' reactions (e.g., others' approval, appearance) or that rely on others' love or support (e.g., family support, God's love). For example, research on attachment styles and religion has shown that dismissing individuals are likely to describe themselves as agnostic (Kirkpatrick & Shaver, 1992).

In sum, we predict that different attachment styles are related to different bases of self-esteem, independent of level of self-esteem. Secure individuals should be more likely to base their self-esteem on family support and God's love because these sources provide unconditional love and support, and research has shown that secure individuals base their self-esteem on their close relationships with others (Brennan & Bosson, 1998; Brennan & Morris, 1997). Preoccupied individuals should be likely to base their self-esteem on others' approval and their appearance because they are deeply concerned with interpersonal acceptance and rejection. Fearful individuals, who are also highly rejection sensitive, should base their self-esteem on others' approval and appearance as well. Finally, dismissing individuals, who value self-reliance and independence, should be less likely to base self-esteem on others' approval, appearance, family support, or God's love and more likely to base self-esteem on academic competence.

METHOD

Participants and Procedure

Incoming college freshmen at the University of Michigan were recruited to participate in three hour-long surveys in exchange for $50 as part of The Adjustment to College Project. The Time 1 survey was completed in August 1999, prior to the start of the freshman year of college, either by accessing a World Wide Web page or completing a paper version of the survey. The Time 2 survey was completed during January 2000, at the beginning of the second semester of college. The Time 3 survey was completed in April 2000 in the last 2 weeks of the freshman year. Details of the sample at each wave of data collection are reported elsewhere (see Crocker et al., 2003). The present study focuses on data collected at Time 1. This sample included 795 students, ranging in age from 16 to 22 years (M = 17.78, SD = .66), and consisted of 343 men, 451 women, 1 unknown gender; 331

European Americans, 150 African Americans, 166 Asian Americans, 131 Asians, and 17 unknown.

Materials[3]

Demographic information. Data on participants' gender and ethnicity were collected at Time 1 and combined annual parental income was assessed at Time 3 on a scale ranging from 1 (less than $10,000) to 14 ($200,000 or more), with a mean of 10.37, where 10 indicates an income of $60,000 to $74,999 ($SD$ = 2.96).

Contingencies of self-worth. The Contingencies of Self-Worth scale (CSW) (Crocker et al., 2003) assesses seven contingencies on which participants base their self-worth at Time 1. The subscales include physical appearance (e.g., "My self-esteem does not depend on whether or not I feel attractive," reverse-scored, and "My self-esteem is influenced by how attractive I think my face or facial features are," α = .83); approval from others (e.g., "I don't care what other people think of me," reverse-scored, and "My self-esteem depends on the opinions others hold of me," α = .81); outdoing others in competition (e.g., "Doing better than others gives me a sense of self-respect" and "My self-esteem is influenced by how well I do on competitive tasks," α = .87); academic competence (e.g., "My self-esteem is influenced by my academic performance" and "I feel bad about myself whenever my academic performance is lacking," α = .81); family support (e.g., "It is important to my self-respect that I have a family that cares about me" and "When my family members are proud of me, my sense of self-worth increases," α = .85); virtue (e.g., "My self-esteem depends on whether or not I follow my moral/ethical principles" and "My self-esteem would suffer if I did something unethical," α = .83); and God's love (e.g., "My self-esteem goes up when I feel that God loves me" and "My self-esteem would suffer if I didn't have God's love," α = .96). Each of the subscales of the CSW has good test-retest reliability over 8.5 months (rs ranging from .51 to .88) and correlates in the expected direction with other personality variables (Crocker et al., 2003).

Attachment styles. Attachment styles were assessed at Time 1 and were based on Bartholomew's (1990) four-category conceptualization of attachment styles. Participants rated on a 7-point scale (1 = *doesn't describe me at all*, 7 = *describes me very well*) four different paragraphs describing the secure attachment style (e.g., "It is easy for me to become emotionally close to others"); preoccupied attachment style (e.g., "I want to be completely emotionally intimate with others but I often find that others are reluctant to get as close as I would like"); dismissing attachment style (e.g., "I am comfortable without close emotional relationships"); and fearful attachment (e.g., "I want emotionally close relationships but I

find it difficult to trust others completely or to depend on them). In addition, participants selected the one paragraph that best described them (1 = dismissing, 2 = secure, 3 = preoccupied, 4 = fearful).

Self-esteem. Global self-esteem was assessed at Time 1 with the Rosenberg Self-Esteem Inventory (RSEI) (Rosenberg, 1965), which includes 10 items, such as, "On the whole, I am satisfied with myself." Responses were made on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*) and items were reverse-scored where appropriate and averaged for each participant. Cronbach's alpha was .88.

RESULTS

Overview of Analyses

First, we conducted a series of one-way ANOVAs to examine participants' endorsement of contingencies as a function of attachment-style category. We also examined mean differences in endorsement of CSWs within attachment styles. Next, we ran a series of hierarchical regression analyses (a) to control for demographics and test specific hypotheses regarding the associations between CSWs and attachment styles, (b) to examine which CSWs uniquely predict attachment styles when the other CSWs are controlled, and (c) because attachment styles and CSWs are differentially correlated with self-esteem, we controlled for level of self-esteem to ensure that differences in self-esteem did not account for our observed effects. All continuous variables were centered for our regression analyses.

Contingencies of Self-Worth and Attachment Styles

Table 2 presents the zero-order correlations among the variables included in our analyses. The columns of Table 3 show means and standard deviations from a series of one-way ANOVAs testing differences in CSWs and self-esteem level as a function of attachment style category chosen at Time 1. Replicating previous research, we found that people with secure or dismissing attachment styles had relatively high self-esteem, whereas those with preoccupied or fearful styles had lower self-esteem. Regarding specific CSWs, there were no significant differences between attachment styles in basing self-esteem on God's love. However, as predicted, secure individuals were more likely to base self-esteem on family support than were fearful or dismissing individuals, although they did not differ significantly from preoccupied individuals.[4] Dismissing individuals were less likely than any other attachment group to base self-esteem on family support. Preoccupied individuals were more likely to base self-esteem on academic competence than dismissing individuals, with fearful and secure individuals falling between these groups. Preoccupied indi-

viduals also were more likely to base self-esteem on competition than were secure individuals, with dismissing and fearful individuals between these two groups. Secure individuals were more likely and dismissing individuals were least likely to base self-esteem on virtue, with fearful and preoccupied individuals falling between these two groups. Preoccupied individuals were more likely and dismissing individuals were least likely to base self-esteem on others' approval, with fearful and secure individuals falling in between. Finally, both preoccupied and fearful individuals scored higher on the appearance CSW than secure or dismissing individuals.

We also examined differences in CSWs within attachment styles using a within-subjects MANOVA with pairwise comparisons shown in the rows of Table 3. Overall, across attachment styles, scores were high on the academic competence contingency, which is not surprising given our sample of college students at a highly selective academic institution. As predicted, secure individuals were most likely to base self-esteem on family support relative to the other contingencies. Preoccupied individuals were highly contingent on academics, appearance, competition, family support, and virtue, followed by others' approval and God's love. The pattern of results for fearful individuals was similar to that of preoccupied individuals. Finally, dismissing individuals based self-esteem most on academic competence and least on others' approval or on God's love. To aid interpretation of these results, we included the grand means for each contingency to show the normativeness of CSWs across groups.

To determine whether CSWs predicted attachment styles, we conducted a series of hierarchical regression analyses. To control for demographic variables, we first entered gender (coded as 1 = male, 2 = female), ethnicity (entered as three dummy variables: Black, Asian American, and Asian, with 1 in each case = membership in the particular ethnic category and 0 = other, yielding Whites as the reference group), and parental income at Step 1 in all of our analyses. Also at Step 1, we entered the CSW hypothesized to predict the specific attachment style (e.g., family support and God's love for secure attachment). To test whether the other contingencies also predicted attachment style, we entered the other CSW scores into the regression equation at Step 2. Finally, we entered centered Rosenberg self-esteem scores at Step 3 to determine whether level of self-esteem accounted for our effects.[5]

Secure attachment and contingencies. Our first hypothesis was that being contingent on family support and God's love would positively predict secure attachment because of the emphasis on having close relationships that are not very dependent on others' reactions or behaviors. At Step 1 of the regression equation, we entered the family

TABLE 2:   Zero-Order Correlations Among Contingencies of Self-Worth Subscales and Attachment Styles, Wave 1

	1. Self-esteem	2. God's love	3. Family support	4. Academic competence	5. Competition	6. Virtue	7. Others' approval	8. Appearance	9. Secure	10. Preoccupied	11. Fearful	12. Dismissing
N	794	792	795	795	795	795	792	795	795	795	795	795
1.												
2.	−.02											
3.	.10	.21**										
4.	.00	.06	.45**									
5.	−.07*	−.09**	.16**	.50**								
6.	.06	.29**	.39**	.30**	.03							
7.	−.22**	−.06	.30**	.34**	.33**	.12**						
8.	−.21**	−.03	.24**	.38**	.40**	.05	.50**					
9.	.27**	.01	.20**	.07*	.00	.13**	−.00	−.02				
10.	−.24**	.03	.02	.06	.13**	.00	.17**	.19**	.02			
11.	−.23**	.07	−.08*	.04	−.00	−.06	−.00	.15**	−.41**	.10**		
12.	.11**	−.09*	−.18**	−.08*	−.05	−.09*	−.23**	−.15**	−.30**	−.25**	.16**	

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

support and God's love CSWs along with the demographic controls (see Table 4). As predicted, the family support contingency was a significant, positive predictor of secure attachment, but God's love was not a significant predictor. When the five other CSWs were entered at Step 2, family support continued to be a highly significant predictor. At Step 3, level of self-esteem was a significant, positive predictor of secure attachment, but this did not account for our effects; family support remained a highly significant predictor of the secure attachment style.

Preoccupied attachment and contingencies. Our second hypothesis was that appearance and others' approval would be positively related to preoccupied attachment because these CSWs depend on others' ongoing validation and represent relatively conditional sources of self-esteem. As expected, both appearance and others' approval were significant, positive predictors of the preoccupied attachment style at Step 1 (see Table 5). At Step 2, when the other CSWs were entered, appearance and others' approval remained significant and God's love emerged as a significant predictor. Level of self-esteem was a significant, negative predictor of preoccupied attachment at Step 3; with self-esteem level entered, the effect of others' approval became nonsignificant, God's love became marginally significant, but appearance remained a significant predictor. In sum, basing self-worth on interpersonal CSWs that are conditional and depend on others' reactions, such as appearance, is related to having a preoccupied attachment style.

Fearful attachment and contingencies. We predicted that fearful attachment would be associated with the appearance and others' approval CSWs (see Table 6). At Step 1, appearance CSW was significantly related to fearful attachment but not to others' approval. At Step 2, with

the other CSWs entered, appearance remained significant and academic competence emerged as a significant predictor. At Step 3, level of self-esteem emerged as a significant, negative predictor, but this did not account for the effect of appearance or academic competence on fearful attachment, which remained significant.

Dismissing attachment and contingencies. Because dismissing individuals prefer not to depend on others for validation, love, or support, we expected them to be less contingent on others' approval, appearance, family support, and God's love and more contingent on academic competence. The results partially confirmed our hypothesis (see Table 7); at Step 1, others' approval, family support, and God's love were significant, negative predictors of the dismissing attachment style but appearance and academic competence were not significant. At Step 2, with the other CSWs entered, others' approval, family support, and God's love remained significant. At Step 3, self-esteem level did not account for our effects; others' approval, family support, and God's love remained significant, negative predictors of dismissing attachment.

DISCUSSION

Attachment researchers have long theorized that people with different attachment styles derive their self-esteem from different sources. However, the lack of a reliable measure of bases of self-esteem has made it difficult to empirically examine the associations between attachment styles and sources of self-esteem. With the recent development of the CSW scale (Crocker et al., 2003), we examined whether people with different attachment styles derive their self-esteem from different sources of self-worth.

TABLE 3:   Means, Standard Deviations, and Post Hoc Comparisons Among CSW Subscales, Self-Esteem Level, and Attachment Styles, Wave 1

	N	God's Love	Family Support	Academic Competence	Competition	Virtue	Others' Approval	Appearance	Self-Esteem
Secure	334	4.35_{a1} (1.77)	5.65_{a2} (.81)	5.49_{ab3} (.87)	5.00_{a4} (1.02)	5.31_{a5} (1.00)	4.31_{a1} (1.16)	5.02_{a46} (1.01)	5.84_{a} (.76)
Preoccupied	129	4.30_{a1} (1.67)	5.47_{ac23} (.88)	5.66_{a3} (.80)	5.27_{b2} (.83)	5.19_{ab24} (1.01)	4.83_{b4} (1.07)	5.34_{b2} (.86)	5.16_{b} (.97)
Dismissing	154	4.02_{a1} (1.87)	5.09_{b2} (.98)	5.39_{b3} (.85)	5.14_{ab2} (.94)	4.98_{b2} (.97)	4.00_{c1} (1.20)	4.88_{a2} (.97)	5.73_{a} (.91)
Fearful	175	4.43_{a1} (1.74)	5.43_{c23} (.93)	5.58_{ab3} (.77)	5.08_{ab4} (1.01)	5.20_{ab24} (.98)	4.55_{ab1} (1.23)	5.37_{b23} (.98)	5.19_{b} (1.13)
Total	792	4.30 (1.77)	5.47 (.91)	5.52 (.84)	5.09 (.98)	5.20 (.99)	4.39 (1.20)	5.12 (.99)	

NOTE: Within columns, means not showing a common letter subscript differ at $p < .05$ or more according to the Bonferroni method. Within rows, means not showing a common numerical subscript differ at $p < .05$ or more according to the Bonferroni method.

TABLE 4:   Statistics From Regression Analyses Predicting the Secure Attachment Style, Wave 1

	Standardized Betas		
	Step 1	Step 2	Step 3
Family support	.18***	.20***	.15**
God's love	−.01	−.03	−.01
Virtue		.03	.04
Academic competence		.01	.01
Competition		−.02	−.01
Appearance		−.07	−.03
Others' approval		−.03	.02
Level of self-esteem			.25***

Step 1 R^2 = .046, $F(7, 596)$ = 4.14, $p < .001$
Step 2 ΔR^2 = .058, $\Delta F(12, 591)$ = 2.90, $p < .01$
Step 3 ΔR^2 = .104, $\Delta F(13, 590)$ = 5.71, $p < .001$

NOTE: Analysis controls for gender, race (Black, Asian American, and Asian dummy variables), and parental income.
**$p < .01$. ***$p < .001$.

TABLE 5:   Statistics From Regression Analyses Predicting the Preoccupied Attachment Style, Wave 1

	Standardized Betas		
	Step 1	Step 2	Step 3
Appearance	.16**	.16**	.12*
Others' approval	.11*	.11*	.06
Virtue		.01	.01
Academic competence		−.02	−.02
Competition		.05	.04
God's love		.10*	.08[a]
Family support		−.05	−.01
Level of self-esteem			−.22***

Step 1 R^2 = .066, $F(7, 596)$ = 6.00, $p < .001$
Step 2 ΔR^2 = .076, $\Delta F(12, 591)$ = 4.05, $p < .001$
Step 3 ΔR^2 = .117, $\Delta F(13, 590)$ = 6.00, $p < .001$

NOTE: Analysis controls for gender, race (Black, Asian American, and Asian dummy variables), and parental income.
a. Marginally significant.
*$p < .05$. **$p < .01$. ***$p < .001$.

From a developmental perspective, early interactions between child and caregiver give rise to mental models of the self and others that influence later relationships. According to Bowlby (1973, 1980, 1982), humans seek comfort and a sense of "felt security" from their primary caregivers in times of anxiety, fear, illness, or other threat. Stemming from positive, warm interactions with responsive caregivers, secure individuals have internalized a belief that they are lovable and trust that others will be attentive to their needs (Collins & Read, 1990). Thus, we predicted that securely attached individuals would be likely to derive self-esteem from interpersonal sources that are relatively unconditional and not very dependent on others' reactions, such as family support or God's love. Consistent with previous research (Brennan & Bosson, 1998; Brennan & Morris, 1997), our results confirmed that secures derive self-esteem, in part, from family support, independent of self-esteem level. We did not find, however, that secure attachment was related to basing self-esteem on God's love; perhaps secure individuals already receive love and support from their families and therefore do not need to turn to God's

love as a source of self-esteem. Indeed, Kirkpatrick and Shaver (1992) have shown that only secure individuals who had insecure attachments in childhood reported secure attachment to God as adults. Finally, our ANOVA results showed that secures were more likely to base self-esteem on virtue, which is consistent with their positive model of self; adhering to a moral code confirms that one is a good, decent, worthwhile person (Solomon, Greenberg, & Pyszczynski, 1991).

In contrast to the warm, responsive interactions experienced by secure individuals, preoccupied individuals are likely to have had inconsistent caregivers who conveyed messages of conditional acceptance (Bartholomew, 1990). As a result of these inconsistent messages, preoccupied individuals doubt their lovability and, consequently, turn to others for validation of their tenuous sense of self-worth (Mikulincer, 1998a). Accordingly, we predicted that preoccupied individuals would base their self-worth on sources that depended on others' reactions and were conditional in nature, such as others' approval and appearance. Indeed, our findings showed that preoccupied individuals not only have low self-

TABLE 6: Statistics From Regression Analyses Predicting the Fearful Attachment Style, Wave 1

	Standardized Betas		
	Step 1	Step 2	Step 3
Appearance	.21***	.21***	.19***
Others' approval	−.06	−.05	−.09[a]
Virtue		−.04	−.05
Academic competence		.10*	.10*
Competition		−.06	−.07
God's love		.03	.02
Family support		−.08	−.05
Level of self-esteem			−.18***

Step 1 R^2 = .078, $F(7, 596)$ = 7.22, $p < .001$
Step 2 ΔR^2 = .089, $\Delta F(12, 591)$ = 4.79, $p < .001$
Step 3 ΔR^2 = .116, $\Delta F(13, 590)$ = 5.93, $p < .001$

NOTE: Analysis controls for gender, race (Black, Asian American, and Asian dummy variables), and parental income.
a. Marginally significant.
***$p < .001$.

TABLE 7: Statistics From Regression Analyses Predicting the Dismissing Attachment Style, Wave 1

	Standardized Betas		
	Step 1	Step 2	Step 3
Appearance	−.06	−.07	−.06
Others' approval	−.21***	−.21***	−.20***
Family support	−.11*	−.11*	−.12*
God's love	−.11*	−.11*	−.10*
Academic competence	.07	.06	.06
Competition		.03	.03
Virtue		.01	.01
Level of self-esteem			.04

Step 1 R^2 = .092, $F(10, 593)$ = 6.10, $p < .001$
Step 2 ΔR^2 = .094, $\Delta F(12, 591)$ = 5.10, $p < .001$
Step 3 ΔR^2 = .095, $\Delta F(13, 590)$ = 4.78, $p < .001$

NOTE: Analysis controls for gender, race (Black, Asian American, and Asian dummy variables), and parental income.
a. Marginally significant.
*$p < .05$. ***$p < .001$.

esteem but also are highly contingent on others' approval and their appearance (although the effect of others' approval became nonsignificant after controlling for level of self-esteem). The attachment literature has focused primarily on others' approval as a source of self-esteem for preoccupied individuals, yet the significant appearance finding suggests that physical attractiveness provides an additional route for preoccupied individuals to seek others' approval. Research has shown that people like others who are attractive more than those who fail to live up to cultural standards of beauty (Hatfield & Sprecher, 1986) and attribute more positive qualities to attractive people than to unattractive people (Eagly, Ashmore, Makhijani, & Longo, 1991). Thus, for preoccupied individuals, being concerned about appearance may reflect dependence on others' reactions and a desire to be liked and reassured. In sum, because physical attractiveness plays an important role in interpersonal attraction and relationships, preoccupied individuals are therefore heavily invested in their physical attractiveness as a way to validate their feelings of low self-worth and to feel closer to others.

People with a fearful attachment style are insecure, anxious, and also highly dependent on others for validation of their self-worth. Similar to preoccupied individuals, we found that fearful individuals have low self-esteem, reflecting their belief that they are unworthy and undeserving of others' love. According to Bartholomew (1990), fearful individuals simultaneously desire social contact and closeness yet are intensely distrusting of others and fear rejection. In their vigilant attempts to avoid rejection they avoid social situations and relationships in which they could potentially be rejected (Bartholomew, 1990). Consistent with theory, we found that fearful individuals have relatively low self-esteem and base their self-worth on domains that depend on others' reactions and are conditional, such as their physical appearance. Of interest, we did not find that fearful individuals base their self-esteem on others' approval. In light of this finding, we think that basing self-esteem on appearance might give fearful individuals the perception of control that they otherwise might not experience if self-esteem was based on others' approval, which is relatively less under their control. In addition, the academic competence CSW was related to fearful attachment, which could be interpreted as fearful individuals' attempts to gain others' approval using indirect, "safe" strategies, thereby minimizing the risk of overt rejection. These results suggest that by adhering to cultural standards of value, such as focusing on one's appearance or academic competence, fearful individuals can strategically seek others' acceptance and simultaneously avoid potential rejection. In conclusion, we note the irony inherent in both preoccupied and fearful individuals' insatiable desire for self-validation: On one hand, their nagging insecurities about their worth drive them to continually seek validation from others; yet, the very things they base their self-esteem on (e.g., appearance) reflect unstable, conditional sources of self-worth, leaving them more vulnerable to threats, further exacerbating their negative self-views.

Finally, the dismissing attachment style is characterized by a defensive denial of the need for intimacy and the minimization of perceived distress that might otherwise activate the desire for close relationships (Bartholomew, 1990; Mikulincer, 1995). Dismissing indi-

viduals view themselves positively but hold negative expectations of others' availability and responsiveness; they show disdain for intimate relationships and are perceived by others as cold and hostile (Bartholomew & Horowitz, 1991). Accordingly, we predicted that dismissing individuals would be less likely to derive self-esteem from others' feedback or validation (Brennan & Bosson, 1998), from their close relationships with others (Brennan & Morris, 1997), or from God's love (Kirkpatrick & Shaver, 1992) and more likely to base self-esteem on noninterpersonal sources, such as academic competence. Indeed, we found that dismissing individuals were less dependent on others' approval, family support, or God's love as bases of self-esteem. However, we did not find that dismissing individuals were more likely to base self-esteem on academic competence (see Table 7). We conceptualized competence as basing one's self-esteem on academic performance (e.g., "My self-esteem gets a boost when I get a good grade on an exam or paper"; "I feel bad about myself whenever my academic performance is lacking"); others, as mentioned earlier, have assessed competence in terms of domain-specific self-evaluations, a sense of environmental mastery, reflecting feelings of competence in managing activities, or autonomy, reflecting people's sense of independence and self-regulation (Brennan & Bosson, 1998; Brennan & Morris, 1997). Whereas these constructs refer to specific self-evaluations of competence, our measure assesses self-esteem that is contingent on performing well academically.

If dismissing individuals do not derive self-esteem from others' approval, family support, or God's love, what, then, do they base their self-esteem on? We think that by knowing what dismissing individuals do not base their self-esteem on, we learn something about their underlying motivation to avoid revealing their personal deficiencies and vulnerabilities. For example, research shows that although dismissing individuals typically report high self-esteem, they actually possess defensive self-esteem, refusing to acknowledge personal weaknesses that could make them susceptible to rejection or expose their flaws to others (Mikulincer, 1995, 1998a). Dismissing individuals also engage in defensive projection, suppressing their own flaws by projecting them onto others (Mikulincer & Horesh, 1999); negative views of others, in turn, justifies them maintaining interpersonal distance and being averse to others' feedback (Brennan & Bosson, 1998; Mikulincer & Horesh, 1999). In sum, dismissing individuals' tendency to base self-esteem less on others' approval, family support, or God's love is consistent with the idea that they view others negatively and, instead, value independence and self-reliance.

Conclusion

Taken together, our findings provide the first known empirical evidence that attachment styles are related to different bases of self-esteem. In this study, we measured seven domains of contingency using the recently developed measure of CSWs (Crocker et al., 2003). We acknowledge, however, that there are probably other domains of contingency not measured in this study that may be related to attachment styles. For example, although we did not find an effect for academic competence, we do not wish to rule out competence as a potential source of self-esteem for dismissing individuals given the existing research on this topic (Brennan & Bosson, 1998; Brennan & Morris, 1997); self-reliance, for example, might be a more relevant CSW for dismissing individuals. In contrast, involvement in romantic relationships may be a domain of contingency relevant to preoccupied individuals who tend to report falling in love more often (Feeney & Noller, 1990). Thus, future research could explore these and other domains of contingency as they relate to different attachment styles.

Because of the correlational nature of our data, we cannot infer causality between attachment styles and CSWs. However, we suspect that people initially develop attachment systems that correspond to their early interactions with caregivers. For example, preoccupied individuals, who receive inconsistent care coupled with messages of parental devotion, conclude that they are unlovable unless they satisfy others' expectations (Collins & Read, 1990; Mikulincer, 1998a). To maintain a sense of security and relational closeness, preoccupied individuals are likely to base their self-worth on interpersonal domains that depend on others' reactions and validation, such as others' approval or appearance. For dismissing individuals, feelings of safety come from being self-reliant because caregivers were generally unreliable (Bartholomew, 1990; Brennan & Morris, 1997). Accordingly, dismissing individuals are less likely to base self-esteem on others' approval, family support, or God's love.

Although early interactions with caregivers provide a relational template for interacting with others throughout life, it is likely that later adult relationships play an important role in influencing people's attachment styles and CSWs (Collins & Read, 1990; Feeney & Noller, 1990; Hazan & Shaver, 1987). For example, someone with a fearful attachment style might become more securely attached as a result of being in a close, mutually caring adult relationship. Being in a secure relationship, in turn, reduces the ongoing need for others' validation, which may lead people to become less contingent on others' approval, for example, and derive self-esteem more from family support, similar to the pattern of secure individuals. Thus, although attachment styles and

CSWs are often viewed as stable constructs, certain life experiences, such as being in a close relationship, might influence people's attachment styles and CSWs. In addition, there may be important implications for basing self-esteem on various CSWs for relationship quality and stability. Research has shown that attachment styles are related to relationship satisfaction, closeness, and commitment (e.g., Brennan & Shaver, 1995; Collins & Read, 1990; Feeney & Noller, 1990; Simpson, 1990), support seeking and caregiving (Collins & Feeney, 2000; Simpson et al., 1992), and relationship conflict (Simpson et al., 1992). Future research could examine whether differences in people's bases of self-esteem mediate the effects of attachment styles on these and other relationship outcomes.

In conclusion, by looking beyond whether self-esteem is high or low to examining differences in specific sources of self-esteem among attachment styles, we can gain a better understanding of why people with different attachment styles behave the way they do and the impact of bases of self-esteem in people's daily lives and close relationships.

NOTES

1. Although the competition Contingency of Self-Worth (CSW) could be viewed as interpersonally based because it involves other people, we think that basing self-worth on outperforming others is qualitatively different from seeking love, support, or validation from others. The virtue CSW can be viewed as relatively noninterpersonal because it mainly involves adhering to a moral code. However, because previous research has shown that both competition and virtue are likely to be bases of self-esteem among college students (Crocker, Luhtanen, Cooper, & Bouvrette, 2003), we included these domains in our study for exploratory purposes.

2. These pilot data were collected and analyzed by Riia Luhtanen.

3. We also measured personality variables using the Big Five Personality Inventory (John, Donahue, & Kentle, 1992) at Time 2 to examine whether personality variables accounted for the predicted associations between attachment styles and CSWs. The Big Five Inventory measures the following personality variables: Extraversion (e.g., "is talkative"), Agreeableness (e.g., "likes to cooperate with others"), Conscientiousness (e.g., "does a thorough job"), Neuroticism (e.g., "can be moody"), and Openness (e.g., "is original, comes up with new ideas"). The stem for all the items is "I see myself as someone who . . . "; responses were made on a 5-point scale from 1 = *disagree strongly* to 5 = *agree strongly*. Responses to items for each subscale were averaged. The alphas for these scales were .86, .75, .79, .82, and .78 for Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness, respectively.

4. Although secure individuals did not differ significantly from preoccupied individuals on the family support CSW, the direction of the effect was consistent with our predictions; secure individuals tended to base self-esteem more on family support ($M = 5.65$, $SD = .81$) than did preoccupied individuals ($M = 5.47$, $SD = .88$). One possibility for the lack of a significant difference may be due to our differing sample sizes (secure $N = 334$; preoccupied $N = 129$). With more preoccupied individuals, we might have had sufficient power to detect a difference.

5. We also conducted regression analyses to determine whether Big Five personality variables accounted for our effects. For these analyses, we entered demographic controls and the predicted CSWs at Step 1, the other six CSWs at Step 2, level of self-esteem scores at Step 3, and Big Five personality variables that were correlated with the predicted CSWs and attachment style at Step 4. For secure attachment, family support CSW remained a significant predictor ($\beta = .11$, $p < .01$) even

after controlling for Extraversion and Agreeableness. For preoccupied attachment, appearance CSW remained a significant predictor ($\beta = .10$, $p < .05$) but God's love CSW became nonsignificant after controlling for Neuroticism. For fearful attachment, controlling for Extraversion and Agreeableness eliminated the effect of academic competence but did not affect the significance of the appearance CSW ($\beta = .19$, $p < .001$). For dismissing attachment, entering Neuroticism did not account for our effects; others' approval ($\beta = -.20$, $p < .001$), family support ($\beta = -.12$, $p < .05$), and God's love ($\beta = -.10$, $p < .05$) all remained significant predictors.

REFERENCES

Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment.* Hillsdale, NJ: Lawrence Erlbaum.

Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships, 7,* 147-178.

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61,* 226-244.

Bowlby, J. (1973). *Attachment and loss, Vol. II. Separation: Anxiety and anger.* New York: Basic Books.

Bowlby, J. (1980). *Attachment and loss, Vol. III. Loss: Sadness and depression.* New York: Basic Books.

Bowlby, J. (1982). *Attachment and loss, Vol. I. Attachment* (2nd ed.). New York: Basic Books. (Original work published 1969)

Brennan, K. A., & Bosson, J. K. (1998). Attachment-style differences in attitudes toward and reactions to feedback from romantic partners: An exploration of the relational bases of self-esteem. *Personality and Social Psychology Bulletin, 24,* 699-714.

Brennan, K. A., & Morris, K. A. (1997). Attachment styles, self-esteem, and preferences for seeking feedback from romantic partners. *Personality and Social Psychology Bulletin, 23,* 23-31.

Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin, 21,* 267-283.

Bylsma, W. H., Cozzarelli, C., & Sumer, N. (1997). Relation between adult attachment styles and global self-esteem. *Basic and Applied Social Psychology, 19,* 1-16.

Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology, 571,* 810-832.

Collins, N. L., & Feeney, B. C. (2000). A safe haven: An attachment theory perspective on support seeking and caregiving in intimate relationships. *Journal of Personality and Social Psychology, 78,* 1053-1073.

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology, 58,* 644-663.

Cooper, M. L., Shaver, P. R., & Collins, N. L. (1998). Attachment styles, emotion regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology, 74,* 1380-1397.

Coopersmith, S. (1967). *The antecedents of self-esteem.* San Francisco: Freeman.

Crocker, J. (2002). The costs of seeking self-esteem. *Journal of Social Issues, 58,* 597-615.

Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. (2003). When grades determine self-worth: Consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of Personality and Social Psychology, 85,* 507-516.

Crocker, J., & Luhtanen, R. K. (2003). Level of self-esteem and contingencies of self-worth: Unique effects on academic, social, and financial problems in college freshmen. *Personality and Social Psychology Bulletin, 29,* 701-712.

Crocker, J., Luhtanen, R. K., Cooper, M. L., & Bouvrette, A. (2003). Contingencies of self-worth in college students: Theory and measurement. *Journal of Personality and Social Psychology, 85,* 894-908.

Crocker, J., & Park, L. E. (2003). Seeking self-esteem: Construction, maintenance, and protection of self-worth. In M. Leary & J. Tangney (Eds.), *Handbook of self and identity* (pp. 291-313). New York: Guilford.

Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin, 130*, 392-414.

Crocker, J., Sommers, S., & Luhtanen, R. (2002). Hopes dashed and dreams fulfilled: Contingencies of self-worth in the graduate school admissions process. *Personality and Social Psychology Bulletin, 28*, 1275-1286.

Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review, 108*, 593-623.

Dutton, D. G., Saunders, K., Starzomswki, A., & Bartholomew, K. (1994). Intimacy-anger and insecure attachment as precursors of abuse in intimate relationships. *Journal of Applied Social Psychology, 24*, 1367-1386.

Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but . . . A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin, 100*, 109-128.

Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology, 58*, 281-291.

Green, J. D., & Campbell, W. K. (2000). Attachment and exploration in adults: Chronic and contextual accessibility. *Personality and Social Psychology Bulletin, 26*, 452-461.

Griffin, D. W., & Bartholomew, K. (1994). The metaphysics of measurement: The case of adult attachment. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships*. Vol. 5: Attachment processes in adulthood (pp. 17-52). London: Kingsley.

Harter, S. (1993). Causes and consequences of low self-esteem in children and adolescents. In R. F. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard* (pp. 87-116). New York: Plenum.

Hatfield, E., & Sprecher, S. (1986). Measuring passionate love in intimate relations. *Journal of Adolescence, 9*, 383-410.

Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*, 511-524.

Horowitz, L. M., Rosenberg, S. E., & Bartholomew, K. (1993). Interpersonal problems, attachment styles, and outcomes in brief dynamic psychotherapy. *Journal of Consulting and Clinical Psychology, 61*, 549-560.

James, W. (1890). *The principles of psychology*. (Vol. 1). Cambridge, MA: Harvard University Press.

John, O. P., Donahue, E. M., & Kentle, R. L. (1992). *The "Big Five" inventory: Versions 4a and 54*. Unpublished manuscript, University of California, Berkeley.

Kirkpatrick, L. A. (1998). God as a substitute attachment figure: A longitudinal study of adult attachment style and religious change in college students. *Personality and Social Psychology Bulletin, 24*, 961-973.

Kirkpatrick, L. A., & Shaver, P. R. (1992). An attachment-theoretical approach to romantic love and religious belief. *Personality and Social Psychology Bulletin, 18*, 266-275.

Levy, K. N., Blatt, S. J., & Shaver, P. R. (1998). Attachment styles and parental representations. *Journal of Personality and Social Psychology, 74*, 407-419.

Mikulincer, M. (1995). Attachment style and the mental representation of the self. *Journal of Personality and Social Psychology, 69*, 1203-1215.

Mikulincer, M. (1998a). Adult attachment style and affect regulation: Strategic variations in self-appraisals. *Journal of Personality and Social Psychology, 75*, 420-435.

Mikulincer, M. (1998b). Adult attachment style and individual differences in functional versus dysfunctional experiences of anger. *Journal of Personality and Social Psychology, 74*, 513-524.

Mikulincer, M., & Horesh, N. (1999). Adult attachment style and the perception of others: The role of projective mechanisms. *Journal of Personality and Social Psychology, 76*, 1022-1034.

Mikulincer, M., & Nachshon, O. (1991). Attachment style and patterns of self-disclosure. *Journal of Personality and Social Psychology, 61*, 321-331.

Park, L. E., & Crocker, J. (2003). *Thinking of me: Contingent self-worth and failure*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, Los Angeles.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*, 1069-1081.

Shaver, P. R., & Brennan, K. A. (1992). Attachment styles and the "Big Five" personality traits: Their connections with each other and with romantic outcomes. *Personality and Social Psychology Bulletin, 18*, 536-545.

Shaver, P. R., & Hazan, C. (1988). A biased overview of the study of love. *Journal of Social and Personal Relationships, 5*, 473-501.

Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology, 59*, 971-980.

Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support-seeking and support-giving within couple members in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology, 62*, 434-446.

Solomon, S., Greenberg, J., & Pyszczynski, T. (1991). A terror-management theory of social behavior: The psychological functions of self-esteem and cultural worldviews. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 24, pp. 91-159). San Diego, CA: Academic Press.

Sroufe, L. A., & Waters, E. (1977). Attachment as an organizational construct. *Child Development, 48*, 1184-1199.