



ELSEVIER

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

SCIENCE @ DIRECT®

Personality and Individual Differences 40 (2006) 713–723

---

---

PERSONALITY AND  
INDIVIDUAL DIFFERENCES

---

---

[www.elsevier.com/locate/paid](http://www.elsevier.com/locate/paid)

# Contingent self-esteem and the interpersonal circumplex: The interpersonal pursuit of self-esteem

Virgil Zeigler-Hill \*

*Department of Psychology, University of Southern Mississippi, 118 College Drive #5025,  
Hattiesburg, MS 39406, USA*

Received 14 March 2005; received in revised form 1 August 2005; accepted 22 August 2005  
Available online 18 October 2005

---

## Abstract

Contingencies of self-worth refer to those domains upon which an individual has based their self-esteem such as physical appearance or the approval of others. The present study examined whether self-esteem contingencies were associated with particular interpersonal styles in a sample of 356 undergraduates. The interpersonal circumplex (Wiggins et al., 1989) served as the nomological system for evaluating the interpersonal styles associated with the contingencies of self-esteem. A nurturant interpersonal style was associated with basing self-esteem on the support of one's family or God's love. In contrast, individuals who based their self-esteem on outdoing others in competition reported a hostile interpersonal style. The remaining contingencies of self-worth were not as strongly related to interpersonal style. These findings suggest that the domains upon which individuals base their self-esteem are distinguishable with regard to their interpersonal styles.

© 2005 Elsevier Ltd. All rights reserved.

*Keywords:* Self-esteem; Contingent self-esteem; Interpersonal; Interpersonal circumplex

---

---

\* Tel.: +1 601 266 4596.

E-mail address: [virgil@usm.edu](mailto:virgil@usm.edu)

## 1. Introduction

American culture has become preoccupied with the pursuit of self-esteem and a rapidly growing body of literature continues to document the methods people employ to maintain and enhance their self-esteem (Baumeister, Campbell, Krueger, & Vohs, 2003; Crocker & Park, 2004). In fact, the human pursuit of self-esteem is so pervasive that it is often assumed to be a fundamental human need (e.g., Baumeister, Heatherton, & Tice, 1993). Although the vast majority of the self-esteem literature has focused on the level of trait self-esteem (i.e., whether individuals typically possess high or low self-esteem), Crocker and Park (2004) suggest that the desire for self-esteem—and how individuals go about pursuing self-esteem—may be a more important determinant of behavior than the individual's level of self-esteem.

The refocusing of attention on the means by which individuals pursue self-esteem is based upon two ideas proposed more than a century ago by James (1890). First, James proposed that an individual's trait level of self-esteem is relatively independent of objective circumstances, whereas state self-esteem changes in response to the successes and failures in one's life. Second, James noted that not all successes and failures have an equal impact on state self-esteem. Rather, individuals are highly selective about the domains upon which they base their feelings of self-worth. Crocker and her colleagues (Crocker, 2002; Crocker & Luhtanen, 2003; Crocker & Wolfe, 2001; Wolfe & Crocker, 2003) have recently proposed a model of contingent self-esteem based on James's ideas. According to the model of contingent self-esteem, individuals should experience an increase in self-esteem following success in a relevant domain, whereas failure in a relevant domain should result in a decrease in self-esteem (Crocker, 2002; Crocker, Luhtanen, Cooper, & Bouvrette, 2003; Crocker & Wolfe, 2001; Wolfe & Crocker, 2003). This idea was supported by the results of Crocker, Sommers, and Luhtanen (2002) which found that among college students applying to graduate school, those who based their self-esteem on academic competence experienced larger increases in self-esteem on days they received acceptance letters as well as greater decreases in self-esteem on days they received rejection letters than students who did not base their self-esteem on academic competence. Similarly, basing self-esteem on academic competence has been found to moderate the effects of bad grades on the self-esteem of engineering and psychology majors (Crocker, Karpinski, Quinn, & Chase, 2003). Contingencies of self-worth have also been shown to predict the time that college freshmen spend in various activities (e.g., studying, socializing, and grooming; Crocker, Luhtanen, et al., 2003) as well as the problems they encounter (e.g., academic and financial problems; Crocker & Luhtanen, 2003).

One dimension upon which the contingencies of self-worth may differ is the degree to which they are interpersonal in nature. Park, Crocker, and Mickelson (2004) defined interpersonal contingencies as “domains in which individuals seek validation, love, or support from others” (p. 1244). Based on this criterion, Park and her colleagues identified the following contingencies of self-worth (CSWs) as interpersonally based: others' approval, appearance, family support, and God's love. Although Park and her colleagues did not define the competition CSW as being interpersonal, this CSW clearly has an interpersonal component (i.e., the comparison of one's own performance with the performance of other individuals). Granted, competing with others is a very different interpersonal activity than seeking validation, love, and support; however, competition remains a primarily interpersonal activity. Thus, the competition CSW was considered to be an interpersonal CSW in the present study. The remaining CSWs (i.e., academic competence and

virtue) were considered to be relatively non-interpersonal because their satisfaction does not depend on other individuals. However, these CSWs were included in the present study because previous research has shown that college students frequently base their self-esteem upon these domains (e.g., Crocker, Luhtanen, et al., 2003).

A logical first step in understanding the interpersonal similarities and differences between the CSWs is comparison within a known taxonomy. In an effort to understand the interpersonal styles (i.e., the interpersonal behaviors which best characterize the individual across a wide range of interactions and situations) associated with the self-esteem contingencies, the interpersonal circumplex was employed (Wiggins, Phillips, & Trapnell, 1989). The interpersonal circumplex provides a model for understanding the two major dimensions that underlie interpersonal transactions: dominance and nurturance. Interpersonal behaviors have consequences for each individual involved in the encounter and these consequences are often described as exchanges involving the granting, or withholding, of dominance and nurturance. That is, the interpersonal circumplex is a means for illustrating the possible ways in which dominance and nurturance can be exchanged. The space within the interpersonal circumplex is defined by a two-coordinate system which is represented as vertical and horizontal axes. Dominance (DOM) is represented by the vertical axis and nurturance (LOV) is represented by the horizontal axis. Because the DOM and LOV coordinates identify a single point in circumplex space, it is possible to characterize that location in terms of its distance from the origin and its angular placement relative to the horizontal axis (Wiggins et al., 1989). The interpersonal circumplex was chosen for the present study because it is a well-established nomological system that has previously been used to validate constructs relevant to interpersonal behavior (e.g., narcissism and rejection sensitivity) by determining their location in interpersonal circumplex space (e.g., Brookings, Zembar, & Hochstetler, 2003; Gurtman, 1992; Ruiz, Smith, & Rhodewalt, 2001; Wiggins et al., 1989). The projection of a scale in the two-dimensional circumplex space provides information concerning the degree (i.e., vector length) and quality (i.e., angular placement) of the scale's interpersonal content (Gurtman, 1991, 1999).

Because one of the goals of interpersonal behavior is to maintain or enhance self-esteem (e.g., Leary, 1957), the present study examines whether CSWs are related to self-reports of interpersonal style. It is predicted that individuals who base their self-esteem on a particular domain will report an interpersonal style that is consistent with the interpersonal goals of the relevant domain. The interpersonal goals associated with specific contingencies of self-worth are believed to focus on eliciting particular interpersonal behaviors from interaction partners. Throughout its history, interpersonal theory has assumed that interpersonal behavior will be complementary such that the behaviors of one individual are a function of the behaviors of another (e.g., Carson, 1969; Leary, 1957; see Markey, Funder, & Ozer, 2003 for a review). More specifically, reciprocity is expected with respect to dominance (e.g., dominance induces submission) and correspondence with respect to nurturance (e.g., hostility induces hostility). Because individuals with high scores on the family support CSW may desire nurturing behavior from their family members, these individuals may adopt an interpersonal style that emphasizes nurturance. This prediction is consistent with previous findings that individuals who base their self-esteem on the support of their family report a secure attachment style (Park et al., 2004). Individuals with high scores on the others' approval and physical appearance CSWs should adopt interpersonal styles that are both nurturant and submissive because these individuals may seek to elicit interpersonal styles from their interaction partners characterized by nurturance and dominance. Individuals with high scores on the competition

CSW may adopt an interpersonal style characterized by hostility. This prediction is consistent with previous research which has shown that competitive behavior is inversely related to nurturance (e.g., Hynan, 1982). Although the God's love CSW is defined as an interpersonal contingency, no clear predictions were formulated concerning the interpersonal behavior of individuals who base their self-esteem upon this domain. In addition, no predictions were made concerning the interpersonal styles associated with the academic competence and virtue CSWs due to the lack of a clear interpersonal foundation for those CSWs.

## 2. Method

### 2.1. Participants and procedure

Participants were 356 undergraduates (86 men and 270 women) enrolled in introductory psychology who participated in return for partial fulfillment of a research participation requirement. Participants completed measures of contingent self-esteem and interpersonal style in groups ranging from 3 to 10 participants. The mean age of participants was 20.54 ( $SD = 2.82$ ).

### 2.2. Measures

#### 2.2.1. Contingent self-esteem

Contingent self-esteem was measured with the contingencies of self-worth scale (CSWS; Crocker, Luhtanen, et al., 2003; Crocker & Wolfe, 2001). The CSWS consists of 35 items to which participants provide ratings of agreement on scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The CSWS assesses the following seven domains on which college students might base their feelings of self-worth: family love and support (e.g., "When my family members are proud of me, my sense of self-worth increases"), outdoing others in competition (e.g., "Doing better than others gives me a sense of self-respect"), physical appearance (e.g., "When I think I look attractive, I feel good about myself"), God's love (e.g., "My self-worth is based on God's love"), academic competence (e.g., "My self-esteem is influenced by my academic performance"), being a virtuous or moral person (e.g., "I couldn't respect myself if I didn't live up to a moral code"), and others' approval (e.g., "I can't respect myself if others don't respect me"). Each of the subscales of the CSWS has been found to possess good test-retest reliability and correlate in the expected direction with other personality variables such as the Big Five (e.g., Crocker, Luhtanen, et al., 2003). The relationships between the CSWs and the Big Five are especially relevant to the present study because the dominance and nurturance dimensions of the interpersonal circumplex closely correspond to the extraversion and agreeableness dimensions of the five-factor model. Crocker and her colleagues (2003) found that only the family support CSW was correlated with extraversion whereas four of the CSWs (i.e., academic competence, family support, virtue, and God's love) were positively correlated with agreeableness. Only the competition CSW was negatively correlated with agreeableness.

#### 2.2.2. Interpersonal style

Interpersonal style was measured with the Interpersonal Adjectives Scales (IAS-R; Wiggins, 1995). The IAS-R consists of 64 adjectives to which participants provide ratings of accuracy on

scales ranging from 1 (*extremely inaccurate*) to 8 (*extremely accurate*). Ratings of the adjectives provide individual scores on eight personality scales (or octants) which identify particular interpersonal tendencies which represent a unique blend of dominance and nurturance. The octants are alphabetically labeled in a counterclockwise direction around the circumplex at 45° intervals originating at the positive horizontal axis: Assured-Dominant (PA; 90°), Arrogant-Calculating (BC; 135°), Cold-hearted (DE; 180°), Aloof-Introverted (FG; 225°), Unassured-Submissive (HI; 270°), Unassuming-Ingenuous (JK; 315°), Warm-Agreeable (LM; 0°), and Gregarious-Extraverted (NO; 45°). The scores for dominance (DOM) and nurturance (LOV) are weighted linear composites derived from the octant scores. The validity of the IAS-R with respect to its structure and relation to other measures has been demonstrated in a variety of contexts (e.g., Ansell & Pincus, 2004; Tracey, Ryan, & Jaschik-Herman, 2001; Tracey & Schneider, 1995; Wiggins, 1995; Wiggins, Trapnell, & Phillips, 1988; Wiggins et al., 1989; Yik & Russell, 2004).

### 3. Results

#### 3.1. Data analysis

A variety of methods may be employed to examine the association of constructs with the interpersonal circumplex dimensions (e.g., Gurtman, 1992, 1997; Trapnell & Wiggins, 1990). The present study employed the method outlined by Wiggins and Broughton (1991). The first step in this procedure is to characterize the relationship between each domain of contingent self-worth and the two principal dimensions of the circumplex (i.e., DOM and LOV). To locate each domain of contingent self-worth within the interpersonal circumplex, two Pearson product-moment correlations are derived for each domain that serve as  $x$  ( $x = r_{vx}$ ) and  $y$  ( $y = r_{vy}$ ) coordinates. The angle of displacement from the  $x$ -axis was calculated as  $q = \tan^{-1}(y/x)$ . The multiple correlation coefficient for each domain served as the vector length and ranged from a minimum of 0 projecting from the origin to a maximum of 1. The vector length characterizes the strength of the interpersonal nature of the variable. In addition, simultaneous multiple regression analyses were conducted to examine which CSWs are uniquely associated with the IAS-R octants and dimensions.

#### 3.2. Descriptives

Means, standard deviations, minimum values, maximum values, and internal consistency coefficients for the CSWs, IAS-R octants, and IAS-R dimensions are displayed in Table 1. Table 2 presents the bivariate correlations of the CSWs with the IAS-R octants and IAS-R dimensions.

#### 3.3. Projection into interpersonal circumplex space

The results for the projection of the domains of contingent self-esteem into interpersonal circumplex space are shown in Fig. 1. The angular placement, octant location, and vector length for each CSW is presented in Table 3. The CSWs formed three relatively distinct clusters within the interpersonal circumplex. The academic competence, God's love, family support, and virtue

Table 1  
Descriptive statistics

Variable	<i>M</i>	<i>SD</i>	Minimum	Maximum	$\alpha$
<i>CSWS domains</i>					
Family support	27.85	5.06	11.00	35.00	.76
Competition	24.09	6.32	5.00	35.00	.89
Physical appearance	24.32	5.31	6.00	35.00	.73
God's love	26.81	8.35	5.00	35.00	.94
Academic competence	27.90	4.80	10.00	35.00	.77
Virtue	26.19	5.32	5.00	35.00	.77
Others' approval	19.60	6.68	5.00	35.00	.82
<i>IAS-R octants</i>					
Assured-Dominant (PA)	5.28	1.04	2.50	7.50	.79
Arrogant-Calculating (BC)	4.10	1.08	1.10	6.80	.74
Cold-hearted (DE)	2.52	1.15	1.00	7.30	.85
Aloof-Introverted (FG)	2.85	1.27	1.00	6.80	.86
Unassured-Submissive (HI)	3.52	1.23	1.00	6.90	.80
Unassuming-Ingenuous (JK)	3.68	1.08	1.00	6.90	.68
Warm-Agreeable (LM)	6.23	1.12	2.50	8.00	.90
Gregarious-Extraverted (NO)	5.92	1.07	2.30	8.00	.84
<i>IAS-R dimensions</i>					
Dominance (DOM)	.52	1.10	-3.12	3.25	.89
Nurturance (LOV)	.08	1.15	-2.95	3.13	.88

Note: IAS-R dimension scores (i.e., DOM and LOV) are weighted linear composites derived from the octant scores. The reliabilities for these dimension scores were estimated from the internal consistency coefficients for the constituent octant scores (Nanally & Bernstein, 1994).

Table 2  
Correlations of the contingencies of self-worth domains with the interpersonal adjective scale octants and dimensions

	FAM	COMP	APPE	GOD	ACAD	VIRT	OTH
<i>IAS-R octants</i>							
Assured-Dominant (PA)	.04	.16**	-.15**	.10 <sup>†</sup>	.15**	.06	-.19***
Arrogant-Calculating (BC)	-.05	.35***	-.02	-.13*	.08	-.08	-.10 <sup>†</sup>
Cold-hearted (DE)	-.23***	.28***	.00	-.27***	-.08	-.27***	-.07
Aloof-Introverted (FG)	-.17***	.24***	.12*	-.34***	.04	-.06	.06
Unassured-Submissive (HI)	-.05	.03	.16**	-.18***	-.02	-.01	.18***
Unassuming-Ingenuous (JK)	.08	-.10 <sup>†</sup>	.07	-.05	-.01	.08	.20***
Warm-Agreeable (LM)	.27***	-.17***	.10 <sup>†</sup>	.25***	.11*	.28***	.21***
Gregarious-Extraverted (NO)	.32***	-.03	.01	.32***	.11*	.18***	.09 <sup>†</sup>
<i>IAS-R dimensions</i>							
Dominance (DOM)	.11*	.06	-.14**	.23***	.08	.04	-.17***
Nurturance (LOV)	.30***	-.30***	.03	.34***	.06	.27***	.17**

Note: FAM = family support; COMP = outdoing others in competition; APP = Physical appearance; GOD = God's love; ACAD = academic competence; VIRT = virtue; OTH = others' approval.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

<sup>†</sup>  $p < .10$ .

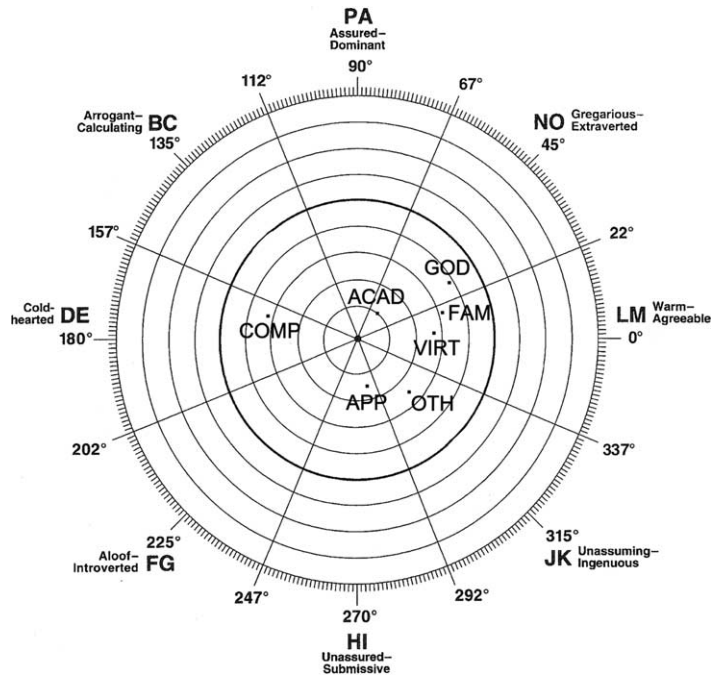


Fig. 1. Projection of the contingencies of self-worth into interpersonal circumplex space. FAM = family support; COMP = competition; APP = physical appearance; GOD = God’s love; ACAD = academic competence; VIRT = virtue; OTH = others’ approval.

Table 3  
Cosine-difference correlations and interpersonal circumplex statistics for the contingencies of self-worth domains

Variable	1	2	3	4	5	6	7
1. Family support	–						
2. Competition	–.86	–					
3. Physical appearance	–.15	–.39	–				
4. God’s love	.97	–.70	–.39	–			
5. Academic competence	.84	–.44	–.66	.95	–		
6. Virtue	.98	–.94	.05	.90	.72	–	
7. Others’ approval	.40	–.82	.85	.16	–.16	.57	–
Angular placement	19.51°	168.32°	281.07°	33.81°	52.22°	8.39°	313.10°
Octant location	LM	DE	HI	NO	NO	LM	JK
Vector length	.31	.31	.14	.39	.10	.27	.25

CSWs were located within the Gregarious-Extraverted and Warm-Agreeable octants of the circumplex. In contrast, the physical appearance and others’ approval CSWs were located in the Unassured-Submissive and Unassuming-Ingenuous octants. Finally, the competition CSW—which was separated from its nearest neighbor by more than 112°—was characterized by a Cold-hearted interpersonal style. It is important to note that the competition CSW is the only CSW associated with a hostile interpersonal style.

### 3.4. *Measuring interpersonal similarity*

The interpersonal similarity among the CSWs was estimated by using the proximity of their angular placements. The index of the interpersonal similarity of the CSWs was their cosine-difference correlations which is equal to the cosine of the angle of separation between the CSWs (Gurtman, 1992, 1999). For example, if two CSWs had the same angular placement, their cosine-difference correlation would be equal to 1 (i.e.,  $\cos[0] = 1$ ). For two CSWs separated by 90°, the cosine-difference correlation would be 0. For two CSWs separated by 180°, the cosine-difference correlation would be  $-1$ , and so forth. As explained by Gurtman (1992), a cosine-difference correlation is equivalent to a reproduced correlation in factor analysis for constructs measured in two dimensions. The cosine-difference correlations for the CSWs are presented in Table 3. Not surprisingly, the competition CSW—due to its association with hostility—was the most interpersonally unique CSW with an average cosine-difference correlation of  $-.69$ . However, as shown by Table 3, the remaining CSWs were associated with widely varying interpersonal behaviors. This variation in interpersonal behavior is indicated by the low average cosine-difference correlations:  $.36$  for family support;  $-.11$  for physical appearance;  $.32$  for God's love;  $.20$  for academic competence;  $.38$  for virtue; and  $.22$  for others' approval.

### 3.5. *Contingencies of self-worth and interpersonal style*

The goal of the present analyses was to examine the unique associations of particular CSWs with interpersonal behavior. This was accomplished by conducting a series of multiple regression analyses in which each of the IAS-R octant and dimension scores were regressed onto the CSWs. The results of these analyses are presented in Table 4. The results showed that nurturant interpersonal behavior was associated with the following CSWs: family support, God's love, virtue, and others' approval. The competition CSW was the only CSW associated with hostile interpersonal behavior. The competition and God's love CSWs were associated with dominance whereas the physical appearance and others' approval CSWs were characterized by submissive interpersonal behavior.

## 4. Discussion

The results of the present study provide insight into the interpersonal nature of contingent self-esteem. Although each of the domains of contingent self-esteem were associated with one or more IAS-R octant scores, only three of the domains exceeded Gurtman's (1991) rule of thumb for determining that a construct has substantial interpersonal content (i.e., a vector length that exceeds  $.30$ ). These three CSWs were: family support, God's love, and competition. Individuals who based their self-esteem on the support of their family or God's love reported more nurturant interpersonal behaviors; whereas, individuals basing their self-esteem on competition were hostile toward others. In addition, the virtue and others' approval CSWs had marginal levels of interpersonal content (i.e., vector lengths approaching  $.30$ ). Thus, 5 of the 7 CSWs possessed either marginal or substantial interpersonal content. The remaining CSWs—physical appearance and academic competence—do not appear to be strongly related to interpersonal style. It is somewhat

Table 4  
Multiple regression analyses for the contingencies of self-worth domains

Variables	PA <sup>a</sup>	BC <sup>b</sup>	DE <sup>c</sup>	FG <sup>d</sup>	HI <sup>e</sup>	JK <sup>f</sup>	LM <sup>g</sup>	NO <sup>h</sup>	DOM <sup>i</sup>	LOV <sup>j</sup>
Family support	-.03	-.04	-.13*	-.14*	-.03	.09	.15**	.24***	.06	.20***
Competition	.23***	.42***	.34***	.19***	-.06	-.17**	-.26***	-.02	.15**	-.36***
Physical appearance	-.21***	-.12*	-.04	.05	.13*	.03	.06	-.06	-.15**	.04
God's love	.10 <sup>†</sup>	-.05	-.12*	-.29***	-.18**	-.13*	.11*	.23***	.22***	.18**
Academic competence	.18**	.07	-.01	.05	-.05	-.07	-.02	-.01	.08	-.04
Virtue	.01	-.09	-.20***	.03	.03	.09	.17**	.00	-.05	.15**
Others' approval	-.19***	-.13*	-.05	.00	.15*	.20***	.16**	.07	-.15**	.16**

Note: PA = Assured-Dominant; BC = Arrogant-Calculating; DE = Cold-hearted; FG = Aloof-Introverted; HI = Unassured-Submissive; JK = Unassuming-Ingenuous; LM = Warm-Agreeable; NO = Gregarious-Extraverted.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

<sup>†</sup>  $p < .10$ .

<sup>a</sup> Multiple  $R = .37$ ;  $R^2 = .14$ ;  $F(7, 348) = 8.04$ ,  $p < .001$ .

<sup>b</sup> Multiple  $R = .43$ ;  $R^2 = .18$ ;  $F(7, 348) = 11.10$ ,  $p < .001$ .

<sup>c</sup> Multiple  $R = .46$ ;  $R^2 = .21$ ;  $F(7, 348) = 13.46$ ,  $p < .001$ .

<sup>d</sup> Multiple  $R = .42$ ;  $R^2 = .17$ ;  $F(7, 348) = 10.48$ ,  $p < .001$ .

<sup>e</sup> Multiple  $R = .28$ ;  $R^2 = .08$ ;  $F(7, 348) = 4.32$ ,  $p < .001$ .

<sup>f</sup> Multiple  $R = .29$ ;  $R^2 = .08$ ;  $F(7, 348) = 4.39$ ,  $p < .001$ .

<sup>g</sup> Multiple  $R = .45$ ;  $R^2 = .20$ ;  $F(7, 348) = 12.34$ ,  $p < .001$ .

<sup>h</sup> Multiple  $R = .39$ ;  $R^2 = .16$ ;  $F(7, 348) = 9.11$ ,  $p < .001$ .

<sup>i</sup> Multiple  $R = .34$ ;  $R^2 = .12$ ;  $F(7, 348) = 6.66$ ,  $p < .001$ .

<sup>j</sup> Multiple  $R = .54$ ;  $R^2 = .29$ ;  $F(7, 348) = 20.49$ ,  $p < .001$ .

surprising that the physical appearance CSW did not have a more substantial interpersonal component. The failure to find a consistent interpersonal style for individuals who base their self-esteem on their appearance may suggest that a diverse array of interpersonal behaviors may be employed to elicit the sort of attention these individuals desire.

The domains of contingent self-esteem were associated with a variety of interpersonal styles. Basing one's self-esteem on family support or virtue was associated with a warm-agreeable interpersonal style. The warm-agreeable interpersonal style involves granting love but not status to oneself and granting both love and status to others (Wiggins, 1995). Individuals who base their self-esteem on God's love were found to possess a gregarious-extraverted interpersonal style which reflects the granting of both love and status to oneself and others (Wiggins, 1995). Basing self-esteem on the approval of others was associated with an interpersonal style that was unassuming-ingenuous. This interpersonal style reflects the denial of love and status for oneself but granting both to others. Individuals who base their feelings of self-worth on competition were found to report a cold-hearted interpersonal style which involves the granting of status but not love to the self and the denial of both status and love to others. It is interesting that the competition CSW was so different from the other CSWs in terms of interpersonal style. In fact, the competition CSW was separated from the nearest CSW (i.e., physical appearance) by more than 112°. The unique interpersonal style associated with the competition CSW was due in large part to its projection on the LOV dimension with competition being negative (i.e., hostile) whereas the

others were positive (i.e., nurturing). The interpersonal style associated with basing one's self-esteem on competition suggests that this is a method for pursuing self-esteem that is strongly interpersonal and that is associated with a set of interpersonal behaviors that are radically different from those associated with the other bases of self-esteem that are captured by the other CSWs.

Because of the correlational nature of the present data, the direction of causality between the contingencies of self-worth and interpersonal styles cannot be determined. Although the assumption underlying the present study was that individuals adopt interpersonal styles that enable them to accomplish interpersonal goals relevant to the maintenance and enhancement of self-esteem in the domains upon which they base their feelings of self-worth, this cannot be established using the data from the present study. Rather, alternative explanations for the present findings clearly exist. One alternative possibility is that individuals may choose their self-esteem contingencies based upon their interpersonal styles. For example, someone with a nurturing interpersonal style would be unlikely to base their self-esteem on outdoing others in competition. Another possibility is that a third variable (e.g., social environment during childhood) may influence both the domains upon which individuals base their self-esteem as well as their interpersonal style.

The findings of the present study provide the first known empirical evidence that different bases of self-esteem are associated with particular interpersonal styles. Although the present study focused only on the domains of contingent self-esteem identified by the CSWS, there are most likely a number of additional domains upon which individuals base their self-esteem. For example, even though academic competence was not strongly associated with interpersonal style, it is certainly possible that other areas of competence may be intimately tied to the interpersonal realm (e.g., competence as a leader). Future research should explore the interpersonal nature of self-esteem contingencies that were not examined in the present study as well as employing non-self-report measures.

## References

- Ansell, E. B., & Pincus, A. L. (2004). Interpersonal perceptions of the five-factor model of personality: An examination using the structural summary method for circumplex data. *Multivariate Behavioral Research*, *39*, 167–201.
- Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, *4*, 1–44.
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1993). When ego threats lead to self-regulation failure: Negative consequences of high self-esteem. *Journal of Personality and Social Psychology*, *64*, 141–156.
- Brookings, J. B., Zembar, M. J., & Hochstetler, G. M. (2003). An interpersonal circumplex/five-factor analysis of the rejection sensitivity questionnaire. *Personality and Individual Differences*, *34*, 449–461.
- Carson, R. C. (1969). *Interaction concepts of personality*. Chicago: Aldine.
- Crocker, J. (2002). Contingencies of self-worth: Implications for self-regulation and psychological vulnerability. *Self and Identity*, *1*, 143–149.
- Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (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 students. *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. (2004). The costly pursuit of self-esteem. *Psychological Bulletin*, *130*, 392–414.

- Crocker, J., Sommers, S. R., & Luhtanen, R. K. (2002). Hopes dashed and dreams fulfilled: Contingencies of self-worth and admissions to graduate school. *Personality and Social Psychology Bulletin*, 28, 1275–1286.
- Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review*, 108, 593–623.
- Gurtman, M. B. (1991). Evaluating the interpersonalness of personality scales. *Personality and Social Psychology Bulletin*, 17, 670–677.
- Gurtman, M. B. (1992). Construct validity of interpersonal personality measures: The interpersonal circumplex as a nomological net. *Journal of Personality and Social Psychology*, 63, 105–118.
- Gurtman, M. B. (1997). Studying personality traits: The circular way. In R. Plutchik & H. R. Conte (Eds.), *Circumplex models of personality and emotions* (pp. 81–102). Washington, DC: American Psychological Association.
- Gurtman, M. B. (1999). Social competence: An interpersonal analysis and reformulation. *European Journal of Psychological Assessment*, 15, 233–245.
- Hynan, M. T. (1982). Aggression in a competitive task. *Psychological Reports*, 50, 663–672.
- James, W. (1890). *The principles of psychology*. Cambridge, MA: Harvard University Press.
- Leary, T. (1957). *Interpersonal diagnosis of personality: A functional theory and methodology for personality evaluation*. New York: Ronald.
- Markey, P. M., Funder, D. C., & Ozer, D. J. (2003). Complementarity of interpersonal behaviors in dyadic interactions. *Personality and Social Psychology Bulletin*, 29, 1082–1090.
- Nanally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Park, L. E., Crocker, J., & Mickelson, K. D. (2004). Attachment styles and contingencies of self-worth. *Personality and Social Psychology Bulletin*, 30, 1243–1254.
- Ruiz, J. M., Smith, T. W., & Rhodewalt, F. (2001). Distinguishing narcissism and hostility: Similarities and differences in interpersonal circumplex and five-factor correlates. *Journal of Personality Assessment*, 76, 537–555.
- Tracey, T. J., Ryan, J. M., & Jaschik-Herman, B. (2001). Complementarity of interpersonal circumplex traits. *Personality and Social Psychology Bulletin*, 27, 786–797.
- Tracey, T. J., & Schneider, P. L. (1995). An evaluation of the circular structure of the checklist of interpersonal transactions and the checklist of psychotherapy transactions. *Journal of Counseling Psychology*, 42, 496–507.
- Trapnell, P. D., & Wiggins, J. S. (1990). Extension of the interpersonal adjective scales to include the big five dimensions of personality. *Journal of Personality and Social Psychology*, 59, 781–790.
- Wiggins, J. S. (1995). *Interpersonal adjective scales professional manual*. Odessa, FL: Psychological Assessment Resources.
- Wiggins, J. S., & Broughton, R. (1991). A geometric taxonomy of personality scales. *European Journal of Personality*, 5, 343–365.
- Wiggins, J. S., Phillips, N., & Trapnell, P. D. (1989). Circular reasoning about interpersonal behavior: Evidence concerning some untested assumptions underlying diagnostic classification. *Journal of Personality and Social Psychology*, 56, 296–305.
- Wiggins, J. S., Trapnell, P. D., & Phillips, N. (1988). Psychometric and geometric characteristics of the revised interpersonal adjective scales (IAS-R). *Multivariate Behavioral Research*, 23, 517–530.
- Wolfe, C. T., & Crocker, J. (2003). What does the self want? Contingencies of self-worth and goals. In S. J. Spencer, S. Fein, M. P. Zanna, & J. M. Olson (Eds.), *Motivated social perception: The Ontario symposium* (Vol. 9, pp. 147–170). Mahwah, NJ: Erlbaum.
- Yik, M. S. M., & Russell, J. A. (2004). On the relationship between circumplexes: Affect and Wiggins' IAS. *Multivariate Behavioral Research*, 39, 203–230.