

# When Finding a Mate Feels Urgent

## Why Relationship Contingency Predicts Men's and Women's Body Shame

Diana T. Sanchez<sup>1</sup>, Jessica J. Good<sup>1</sup>, Tracy Kwang<sup>2</sup>, and Eric Saltzman<sup>1</sup>

<sup>1</sup>Rutgers University, Piscataway, NJ, USA, <sup>2</sup>University of Texas at Austin, TX, USA

**Abstract.** Given the central role of romantic relationships in the lives of men and women and the many benefits of having romantic relationships, some people may derive their self-worth from having a romantic partner (i.e., relationship contingency; Sanchez & Kwang, 2007). Moreover, relationship success may be viewed as somehow related to being beautiful and attractive. Under structural equation modeling, results suggested that both men and women's relationship contingency ( $N = 329$ ) was connected to body shame, mediated by greater urgency about finding mates. In addition, greater body shame was connected to concern over romantic partners' physical appearance. The findings are discussed considering contingencies of self-worth, rising appearance concerns for both men and women, and the perceived connection between relationship status and physical attractiveness.

**Keywords:** body shame, body image, close relationships, contingencies of self-worth, self-esteem

It is widely recognized that interpersonal relationships influence self-worth. For example, the sociometer theory of self-esteem suggests that personal self-esteem reflects individual feelings of acceptance and rejection from others (Leary, Tambor, Terdal, & Downs, 1995). Although researchers have criticized the sociometer theory for failing to take into account the relative importance of specific kinds of relationships (i.e., friendships, family; Kirkpatrick & Ellis, 2004), researchers widely accept that interpersonal relationships serve as an important source of self-esteem. Researchers who examine the different types of relationships that comprise self-worth find that romantic relationships specifically may be a prominent source of self-worth and validation (e.g., Geller, Zaitsoff, & Srikameswaran, 2002; Murray, Griffin, Rose & Bellavia, 2003).

Numerous theorists have discussed the benefits of close relationships. People may pursue close relationships because they provide opportunities for self-expansion (Aron & Aron, 1986). Terror-management theories argue that close relationships buffer individuals from anxiety regarding their death (Mikulincer, Florian, & Hirschberger, 2003). In fact, having a greater number of close relationships has been associated with lower rates of mortality (Cohen, 2004). Evolutionary theories posit that having interpersonal relationships generally aids in human survival by fostering physical protection and instrumental coalitions with others (Kirkpatrick & Ellis, 2004). In addition, people view romantic relationships as important sources of connectedness and companionship. For example, when college students were asked about the benefits of romantic relationships, 60% listed "companionship and affiliation" and 43% listed "feeling loved or loving another" (Sedikides, Oliver, & Campbell, 1994). Drawing from the work suggest-

ing that relationships and, more specifically, romantic relationships serve as important sources of self-esteem, we examine people's *relationship contingency* – individual differences in the extent to which self-esteem is derived from romantic relationships (Sanchez & Kwang, 2007). Specifically, we examine why relationship contingency predicts *body shame* (feeling guilt and shame when one's physical appearance does not conform to cultural standards and ideals; McKinley & Hyde, 1996) by considering the connection between relationship status and the pursuit of physical beauty.

Previous work conducted by Sanchez and Kwang (2007) found that women's relationship contingency increased their level of body shame. In their first two experimental studies, Sanchez and Kwang (2007) found that priming relationship contingency among a sample of women increased their body shame as a result of increased levels of state relationship contingency (Study 1a & 1b). They also found that relationship contingency predicted bulimic symptoms, and that this relationship was mediated by body shame; however, this work failed to include men.

In the present study, we build on this previous work in several ways. First, we determine whether relationship contingency also promotes men's as well as women's body shame. Second, we explore mate urgency as the mechanism through which relationship contingency promotes body shame. Third, we examine whether personal body shame promotes body concerns for romantic partners. Finally, we investigate whether gender differences exist in relationship contingency, mate urgency, body shame, and partner body concerns. Exploring these hypotheses should help demonstrate the role of romantic relationships in shaping body-image concerns for men and women.

## Romantic Relationship Contingency and Body Attitudes

Contingencies of self-worth are domains on which people stake their self-worth (Crocker & Wolfe, 2001). Perceived successes and failures in domains of contingency affect self-evaluations (Crocker, Sommers, & Luhtanen, 2002). Thus, level of relationship contingency should predict relationship-oriented behaviors and concerns such as appearance concerns, because appearance concerns are driven, in part, by the desire to appeal to potential romantic partners.

Women and, increasingly, men are inundated with advertisements that promote unhealthy and unattainable body images as being physically attractive and appealing (Salusso-Deonier, Markee, & Pedersen, 1993). Women and men both may place high importance on beauty and attractiveness as means of finding potential mates for good reason: Physical attractiveness and body weight, as gleaned from empirical research, may indeed play a role in determining relationship status. Overweight women are 20% less likely to marry, while overweight men are 11% less likely to be married than their normal-weight peers (Gaesser, 1996; Gortmaker, Must, Perrin, Sobol, & Dietz, 1993).

Because relationship status is both tied to, and perceived to be related to, physical appearance, we argue that relationship contingency will predict greater body shame for men as well as for women, extending the previous work conducted solely on women (Sanchez & Kwang, 2007). On the one hand, women are at a greater risk for developing body shame. In addition, men more highly value physical attractiveness in their long-term and short-term mates than women (Ben Hamida, Mineka, & Bailey, 1998; Regan, Levin, Sprecher, Christopher, & Cate, 2000; Singh & Young, 1995; Smith, Waldorf, & Trembath, 1990). Thus, heterosexual women may feel that their relationship status is tied to their appearance more so than men do. On the other hand, both men and women perceive physical attractiveness as an important factor in attracting mates, thereby overestimating the appearance ideals held of potential romantic partners (Lamb, Jackson, Cassidy, & Priest, 1993; Pope et al., 2000). Those who derive self-worth from romantic relationships may be more motivated to find romantic partners and keep them. Thus, relationship contingency may make men and women feel as though they are in a state of "mate urgency" that promotes body shame.

## Romantic Relationship Contingency and Mate Urgency

Contingencies of self-worth can serve as behavioral guides (Crocker & Wolfe, 2001). For example, people who have greater appearance contingency spend more time attending to their physical appearance, while people who have great-

er academic contingency spend more time studying and focusing on academic endeavors (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). People are driven to accomplish success in contingent domains because success boosts, and failures threaten, their self-worth (Crocker et al., 2002). For example, students high in academic contingency showed higher self-esteem after acceptance to graduate school and lower self-esteem with rejection to graduate school than do students low in academic contingency. Similarly, the relationship contingency of single women predicted lower self-esteem than that of coupled women (Sanchez & Kwang, 2007). Much like other contingencies, failure to achieve success in the contingency domain (i.e., having a romantic partner or sustaining a romantic relationship) promoted lower self-esteem.

Because success boosts self-esteem in contingent domains, contingencies are believed to have motivational components, thereby predicting behaviors related to domains of contingency (Crocker et al., 2003). Thus, we expected relationship contingency to promote behaviors and attitudes consistent with pursuing and maintaining romantic relationships. According to self-regulation theory, setting goals motivates one to engage in self-monitoring behaviors designed to achieve those goals (Baumeister, Heatherton, & Tice, 1993; Tomarken & Kirschenbaum, 1983). Relationship contingency implies a goal to find a relationship partner and may affect one's feeling of mate urgency – the preoccupation with and exigency toward finding a permanent romantic partner. Preoccupation or intense focus on a particular goal should lead to more regulatory behaviors implemented for goal attainment (Baumeister et al., 1993). Thus, experiencing mate urgency may lead participants to feel more critical of their bodies because appearance is perceived to be a strategy for achieving the goal of finding a relationship partner. In the present study, we examined mate urgency as the mechanism through which relationship contingency promotes body shame. Because we were particularly interested in college-age premarital populations, mate urgency was relevant to both single and coupled men and women who as yet have not identified a life partner.

Certain factors have been identified as influencing the degree to which people experience a sense of mate urgency. For example, being a woman, having more idealistic views of marriage, and watching romance-related media have all been found to relate to greater mate urgency (Segrin & Nabi, 2002). In the present study, we examine whether deriving self-worth from one's relationship status predicted a sense of mate urgency, which then promoted body shame. Specifically, we believed that mate urgency would mediate the link between relationship contingency and body shame for both men and women. Being physically attractive is perceived to be an important predictor of relationship status, increasing the likelihood of finding a mate. Thus, both men and women alike recognize that finding relationships is connected to having a desirable physical appearance. Mate urgency should be connected to appearance concerns,

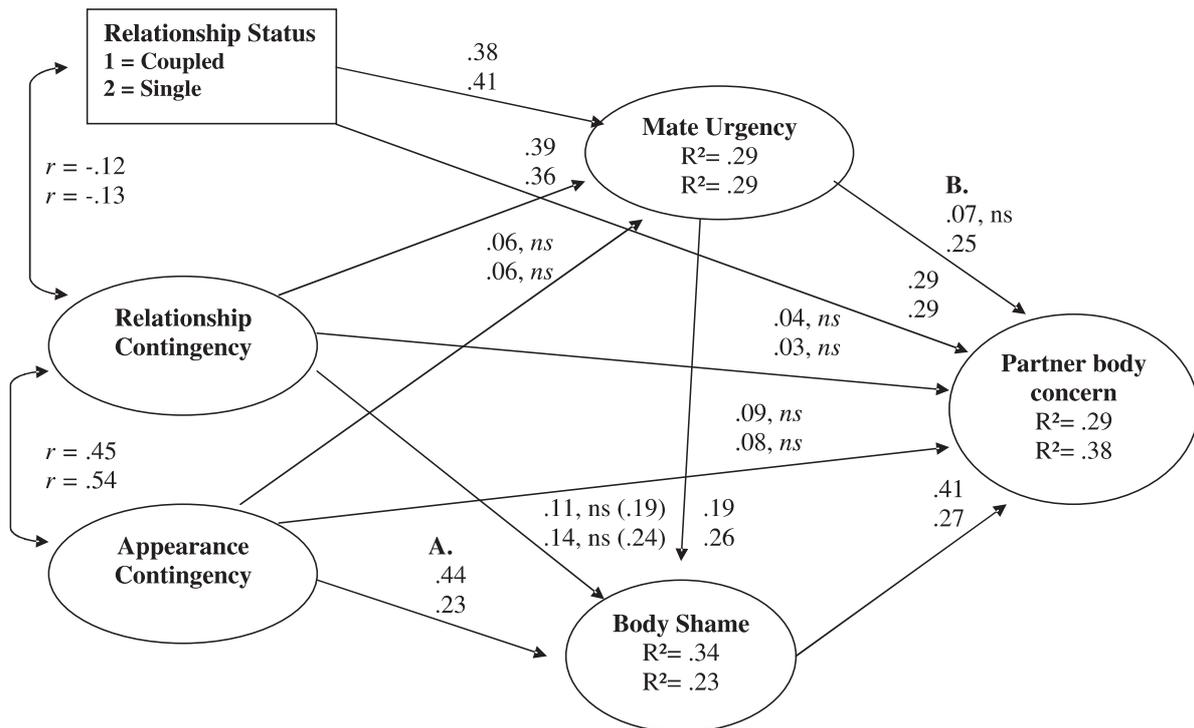


Figure 1. Structural model by gender.  $\beta$  values are significant at  $p < .05$  unless noted otherwise. The results from the best-fitting gender model (Model 7, Table 3) are shown. The model was simultaneously estimated for women and men. The equality constraints from appearance contingency to body shame and from mate urgency to partner body concern were released. Numbers in parentheses represent estimates obtained from the direct effects gender model (Model 9, Table 3) to illustrate significant paths between relationship contingency and body shame that are then mediated by mate urgency in the best-fitting gender model.  $\beta$  values for men are shown at the bottom, women on the top.

especially body shame, because those who feel a pressing need to find a life partner will most likely prioritize their physical appearance. Thus, relationship contingency was expected to predict body shame for both men and women through greater mate urgency.

### Extension of Body Concerns

Research has demonstrated that body shame and dissatisfaction can spread from the self to others. Work on social contagion suggests that social groups can foster eating disorders and dysfunctional body attitudes through shared social pressure and norms (Crandall, 1988). Thus, the experience of body shame may extend to close others such that an individual experiences shame regarding another person's appearance. For example, women who placed greater focus on their own appearance consequently placed greater focus on the appearance of other women when evaluating them (Beebe, Holmbeck, Schober, & Lane, 1996). This could be the result of living in a culture of self-objectification, in which men and (especially) women learn to value their physical appearance over their physical health and competence (Fredrickson & Roberts, 1997). Recent research findings suggest that men and women who self-ob-

jected were more likely to put pressure on others to conform to physical ideals and to objectify those around them (Strelan & Hargreaves, 2005). This may be particularly true for potential romantic partners: Women and men who self-objectified were more likely to objectify the other sex. Specifically, men objectified women more than women objectified other women, and women objectified men more than men objectified other men (Strelan & Hargreaves, 2005). Thus, appearance concerns may create a vicious cycle whereby personal body concerns extend to others, specifically potential and current romantic partners. Therefore, an additional objective of the present study was to demonstrate the link between *personal and partner body concerns*, i.e., greater concerns about the appearance of romantic partners. By partner body concerns, we do not mean actual body shame experienced by one's romantic partner, but rather one's shame regarding the appearance of a romantic partner. Therefore, the present study investigates whether personal body shame extends to concern about a romantic partner's appearance.

### Overview of Study

The aims of the current study are threefold (see Figure 1):

- 1) To examine whether men's as well as women's relationship contingency predicts greater body shame;
- 2) To establish the mechanism through which relationship contingency affects body shame; and
- 3) To demonstrate that body shame predicts partner body concerns for both men and women.

Appearance contingency has been found to be highly correlated with relationship contingency and body shame (Sanchez & Kwang, 2007); therefore, it was included in the model to allow for the evaluation of the relationships between relationship contingency, body shame, and mate urgency, independent of their relationship with appearance contingency. We hypothesized that the following paths would be significant:

- 1) Relationship contingency would predict greater mate urgency, which would, in turn, predict body shame (acting as a mediator);
- 2) Appearance contingency would be positively correlated with relationship contingency and predict body shame as it has in the past (Sanchez & Kwang, 2007); and
- 3) Body shame would predict greater partner body concern.

We also controlled for socially desirable responding and relationship satisfaction in preliminary analyses to ensure that these variables did not alter the results or the hypothesized model. One could argue that relationship contingency was a proxy for relationship satisfaction because greater relationship satisfaction could make people more contingent on their relationship and less mate urgent.

## Method

### Participants

A total of 203 unmarried heterosexual women and 126 unmarried heterosexual men (mean age = 18.76;  $SD = 1.34$ ; range = 16–30), enrolled in introductory psychology classes, were recruited to participate in the study as part of a course requirement. Relationship status was recorded with 157 persons currently involved in romantic relationships and 172 single persons. Racial composition was as follows: White (50%), Asian (23%), Black (9%), Hispanic/Latino (8%), Multiracial (5%), Native American (3%), and Middle Eastern (2%).

### Measures

#### Contingencies of Self-Worth

We administered the 35-item Contingencies of Self-Worth Scale (CSWS; Crocker et al., 2003) in its entirety with the added relationship contingency subscale (Sanchez & Kwang, 2007). We report only on the appearance contin-

gency subscales ( $\alpha = .75$ ) and the relationship contingency subscale ( $\alpha = .77$ ), which showed satisfactory reliability in our sample. An example item from the 5-item appearance subscale included "My sense of self-worth suffers whenever I think I don't look good." Participants indicated their agreement with each statement on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The relationship contingency subscale included the following items: "I feel worthwhile when I have a significant other (i.e., boyfriend or girlfriend)," "When I do not have a significant other (i.e., boyfriend or girlfriend), I feel badly about myself," "When I have a significant other (i.e., boyfriend or girlfriend), my self-esteem increases," and "My self-esteem depends on whether or not I have a significant other (i.e., boyfriend or girlfriend)." The CSWS scale has previously shown good internal reliability ( $< .77$ ) and test-retest reliability in the range from .68 to .92 (Crocker et al., 2003).

#### Body Shame

The Objectified Body Consciousness scale (OBC; McKinley & Hyde, 1996) was administered to assess body shame ( $\alpha = .81$ ). An example item from the 8-item body shame subscale included "I feel ashamed of myself when I haven't made the effort to look my best." Participants indicated their agreement with each statement on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The OBC has shown test-retest reliabilities in the .62 to .81 range and correlated negatively with body esteem and positively with dieting behavior (Lindberg, Hyde, & McKinley, 2006; McKinley & Hyde, 1996). We do not include the subscales measuring body control and body surveillance because previous work finds that relationship contingency consistently causes greater body shame, but does not consistently relate to surveillance or control (Sanchez & Kwang, 2007).

#### Mate Urgency

We measured mate urgency by asking participants to rate their agreement on a scale from 1 (*not at all true*) to 7 (*very true*) with 3 statements: "Sometimes I feel like I am running out of time to find someone to marry," "Sometimes I worry that I may never find a romantic partner to settle down with," and "Sometimes I worry that I am running out of time to start a family." The scale was reliable ( $\alpha = .77$ ). Participants were also asked at what age they hoped to marry to assess whether the sample was interested in getting married ( $M$  desired age of marriage = 26.20,  $SD = 2.25$ ). Each participant completed this item, suggesting that they plan to get married.

#### Partner Body Concerns

We measured the extent to which people had appearance concerns for romantic partners by modifying 7 items from

Table 1. Intercorrelations between study variables for total sample ( $n = 329$ )

Variable	1	2	3	4	5	6	7	8
1. Relationship contingency	–							
2. Appearance contingency	.31**	–						
3. Mate urgency	.35**	.29**	–					
4. Personal body shame	.28**	.38**	.34**	–				
5. Partner body concern	.14*	.13*	.13*	.34**	–			
6. Relationship status <sup>a</sup>	-.13*	-.04	.22**	.03	.24**	–		
7. Relationship satisfaction <sup>b</sup>	.00	-.16*	-.22**	-.19*	-.16*	–	–	
8. Social desirability	-.04	-.22**	-.08	-.15**	-.01	.06	.21**	–

Note. \* $p < .05$ , \*\* $p < .01$ . <sup>a</sup>1 = in relationship, 2 = not in relationship, <sup>b</sup>Relationship satisfaction correlations were only performed on participants in relationships ( $n = 155$ ).

the body shame subscale of the OBC scale (McKinley & Hyde, 1996). For example, the statement, “I feel ashamed of myself when I haven’t made the effort to look my best” was modified to “I (would) feel ashamed of my boyfriend/girlfriend when he/she hasn’t made the effort to look his/her best.” Participants indicated their agreement with each statement on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale was reliable ( $\alpha = .81$ ). Participants were instructed to refer to their previous partner if they were not involved in a romantic relationship.

### Relationship Satisfaction

To ensure that relationship contingency was not simply an alternate measure of relationship satisfaction among those involved in relationships, we measured relationship satisfaction<sup>1</sup>. Participants indicated their agreement to 8 items created for the present study on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Example items included “Right now, I am very satisfied with my romantic relationship” and “I feel very committed to my partner.” The scale was reliable ( $\alpha = .87$ ).

### Social Desirability

To ensure that our results were not altered by socially desirability concerns, we measured social desirability with the Crowne-Marlowe social desirability scale (Crowne-Marlowe, 1960), which consists of 33 true-false statements<sup>2</sup>. Example items included, “Before voting, I thoroughly investigate the qualifications of all the candidates”

and “My table manners at home are as good as when I eat out in a restaurant.”

## Results

Correlations among the observed variables in the entire sample are presented in Table 1. To explore mean level differences by gender and relationship status, we conducted a 2 (Gender)  $\times$  2 (Relationship status) between-subjects ANOVA on each variable included in the study (see Table 2). Means and Cohen’s  $d$  are reported when differences were found. Notably, there was no difference between men and women on level of relationship contingency; however, a marginally significant effect of relationship status was found,  $F(1, 320) = 3.60$ ,  $p = .06$ , such that participants in relationships ( $M = 4.17$ ) were more relationship contingent than those not in relationships ( $M = 3.88$ ,  $d = .26$ ). However, this main effect was moderated by gender,  $F(1, 320) = 4.41$ ,  $p = .04$ . Women in relationships ( $M = 4.20$ ) indicated more relationship contingency than did single women ( $M = 3.70$ ,  $d = .45$ ). We found no differences between single and coupled men on relationship contingency.

We found a significant main effect for gender on mate urgency with women reporting greater mate urgency than men (see Table 2). We found a significant main effect for relationship status as well,  $F(1, 322) = 18.93$ ,  $p < .001$ . Single participants ( $M = 3.52$ ) reported more mate urgency than participants in relationships ( $M = 3.00$ ,  $d = .44$ ). We found significant differences by gender for body shame,  $F(1, 320) = 4.68$ ,  $p < .05$ , with women reporting more body

<sup>1</sup> For men and women involved in relationships, relationship contingency was unrelated to relationship satisfaction (see Table 1); however, greater relationship satisfaction was associated with lower body shame for women and less mate urgency for men and women. We examined whether relationship satisfaction or commitment moderated the results, but relationship contingency did not interact with satisfaction or commitment to predict mate urgency or body shame. We did not include relationship satisfaction in the model because it would reduce our sample to only people involved in relationships, an insufficient sample size for structural equation modeling nested gender models.

<sup>2</sup> To test whether social desirability altered the results, we compared the fit of the model for people high and low in social desirability concerns (determined by median split). Nested model analyses comparing people high and low in social desirability fit the data well. In addition, examination of the Lagrange statistics suggested that there were no differences between the paths for participants who were high and low in socially desirable responding (see Table 3, Model 16).

Table 2. Means and standard deviations by gender ( $N = 329$ )

	Women		Men		Cohen's $d$	$t$	Total	
	$M$	$SD$	$M$	$SD$			$M$	$SD$
Relationship contingency	3.96	1.14	4.11	1.07	-.14	-1.22	4.02	1.11
Appearance contingency	5.24	.92	4.67	.92	.62	5.56**	5.02	0.96
Mate urgency	3.46	1.24	2.98	1.10	.40	3.58**	2.94	1.34
Personal body shame	3.33	1.27	3.04	1.01	.25	2.21*	3.22	1.19
Partner body concern	2.11	.94	2.47	.96	-.37	-3.36**	2.27	0.96

Note. \* $p < .05$ , \*\* $p < .01$ . The range of all the scales was from 1 to 7, higher score indicating higher levels of the construct.

Table 3. Fit statistics and  $\chi^2$  comparisons for models

	Description	Constraints released	Paths excluded from nested model	$\chi^2$	df	NNFI	CFI	RMSEA
Model 1	Measurement model on entire sample		All	52.42*	34	.97	.98	.04
Model 2	Gender-nested measurement model		All	90.41	84	.99	.99	.02
Model 3	Relationship-status-nested measurement model		All	96.67	84	.98	.99	.03
Model 4	Hypothesized model on entire sample			82.90**	42	.95	.97	.06
Model 5	Constrained gender model			131.92*	103	.97	.98	.03
Model 6	Revised gender model	A		125.38+	102	.97	.98	.03
Model 7	Best-fitting gender model	A, B		118.80	101	.98	.99	.02
Model 8	Unconstrained gender model	All		105.26	90	.98	.99	.02
Model 9	Direct effects gender model	A, B	Mate urgency to body shame	128.84*	102	.97	.98	.03
Model 10	Reversed causal gender model			127.75*	102	.97	.98	.03
Model 11	Constrained relationship status model			95.62	84	.99	.99	.03
Model 12	Revised relationship status model	C		93.10	83	.97	.98	.03
Model 13	Best-fitting relationship status model	C,D		89.25	82	.99	.99	.02
Model 14	Unconstrained relationship status model	All		84.06	74	.99	.99	.03
Model 15	Direct effects relationship status model	C,D	Mate urgency to body shame	99.21	83	.98	.99	.04
Model 16	Constrained social desirability model			145.24**	103	.96	.97	.05

Note. + $p < .10$ , \* $p < .05$ , \*\* $p < .01$ . Constraints released letters correspond to paths in Figures 1 and 2. A = the path from appearance contingency to body shame, B = the path from mate urgency to partner body concern, C = the path from relationship contingency to partner body concern, D = the path from appearance contingency to partner body concern.

NNFI = nonnormed fit index, CFI = comparative fit index, RMSEA = root mean square error of approximation.

shame than men (see Table 2). We found significant effects for gender for partner body concern,  $F(1, 320) = 8.17, p = .005$ . Men reported greater partner body concern than women (see Table 2). There was also a significant main effect for relationship status,  $F(1, 320) = 22.65, p < .001$ , on partner body concern. Single participants ( $M = 2.47$ ) reported greater partner body concern than did participants in relationships ( $M = 2.01, d = .49$ ). These effects were qualified by a significant gender by relationship status interaction,  $F(1, 320) = 7.12, p = .008$ , with single men ( $M = 2.80$ ) reporting greater partner body concern than men in relationships ( $M = 2.02, d = .81$ ). We found no difference between single women and women in relationships on partner body concern.

We tested the hypothesized model by confirmatory latent-variable structural analyses using EQS computer soft-

ware. In our analyses, we tested the hypotheses within nested models separately for men and women, and separately for those currently involved and not involved in romantic relationships. In addition, we controlled for relationship status in the nested models for men and women because of the significant mean differences discovered in our initial analyses. We examined Lagrange statistics to determine what paths to include for our control variable relationship status. For the structural equations analysis, we also randomly parceled the measures with the exception of mate urgency for which we used the 3 items as indicators. Parceling is a common procedure used to improve the goodness of fit and to reduce bias in estimations of structural parameters compared to individual item use (Bandalos, 2002). In addition, parceling allows for smaller sample sizes to test structural equation models.

We specified the model such that cases with missing data were deleted, though no data were missing for the study variables. Following standard structural equation modeling reporting with EQS software (Raykov, Torner, & Nesselrode, 1991), we used the following goodness-of-fit indices: nonnormed fit (NNFI), and comparative fit (CFI). Acceptable fit indices exceed .95. The root mean square error of approximation (RMSEA) was also reported; RMSEA misfit indices should be at or below .06 (Hu & Bentler, 1999). Although  $\chi^2$  is not considered a good index for tests of fit because of its sensitivity to sample size,  $\chi^2$  is reported to compare between nested models (Klem, 2000).

## Measurement Models

Before testing the fit of structural equation models, it is important to test how well the indicators relate to the latent variables in a measurement model. Measurement models do not include any direct paths between factors, but rather essentially test a confirmatory factor analysis of all of the latent variables in the model linked by covariances (Kline, 2005). Well-fitting measurement models are necessary to proceed to structural equation modeling analyses. We first tested the overall fit of the *measurement model for the entire sample*. The measurement model on the entire sample fit the data well (see Table 3, Model 1). We then tested the measurement model nested within gender. The *gender nested measurement model* also provided a good fit to the data (see Table 3, Model 2). Examination of the LaGrange statistics in the nested models suggested that the factor loadings could be set to equal for men and women. The *relationship status nested measurement model* also provided a good fit to the data (see Table 3, Model 3). Examination of the LaGrange statistics in the nested models suggested that the factor loadings could be set to equal for people involved and not involved in relationships.

## Summary and Order of Structural Equation Analyses

The procedure for testing for mediation is analogous to analyses with multiple linear regressions (Frazier, Tix, & Barron, 2004). To test mediation with structural equation modeling, we first tested the fit of the hypothesized model nested within groups (e.g., gender, relationship status). Then, we examine LaGrange statistics to determine whether any differences existed between the groups and release equality constraints accordingly. At this point, we will have a best-fitting model that tests several steps of mediation (Baron & Kenny, 1986). The best-fitting model demonstrates whether a significant relationship (e.g., path) exists between the IV and mediator, the mediator and DV, and

whether the IV no longer predicts the DV when the mediator is in the model. Then, we test another nested model called the direct effects model to determine whether a meaningful relationship exists between the IV and DV before the mediator was added. Finally, we perform Sobel's *t*-tests to determine whether the mediation rises to the level of significance necessary to conclude full mediation (Preacher & Hayes, 2004; Sobel, 1982).

## Structural Equation Modeling Analyses Comparing Men and Women

Because the main purpose of this study was to examine the fit of the model for men and women, we primarily focus on reporting the nested model analyses; however, the *hypothesized model on the entire sample* fit the data well (see Table 3, Model 4).

To examine whether the hypothesized model fit the data equally well for both men and women, we examined the fit of the nested model constraining all paths to be equal (the *constrained gender model*). The constrained gender model provided a good fit to the data (see Table 3, Model 5). We examined the modification indices to determine whether equality constraints should be released to improve the fit of the model. The LaGrange modification indices suggested the release of the constraint between appearance contingency and body shame; thus, we released the constraint and tested a *revised gender model* (see Table 3, Model 6). However, the LaGrange statistics from the revised model suggested the release of the equality constraint between mate urgency and partner body concern. This was the *best-fitting gender model* in the nested gender comparisons (see Table 3, Model 7), providing a superior fit to the data than both the revised,  $\chi^2(1) = 6.58, p < .05$ , and the constrained model,  $\chi^2(2) = 13.12, p < .001$ .

Overall the best-fitting model supported our hypotheses. Relationship contingency predicted greater mate urgency, and greater mate urgency predicted more body shame. Because the path from mate urgency to body shame was included in this model, we expected and found that relationship contingency did not predict body shame (consistent with mediation). In the best-fitting model, two gender differences were found. Women's appearance contingency proved to be a stronger predictor of body shame ( $\beta = .44$ ) than men's appearance contingency, although men's appearance contingency predicted body shame as well ( $\beta = .23$ ). Second, mate urgency predicted partner body concern for men ( $\beta = .25$ ) but not women ( $\beta = .07, ns$ ). The final model explained 29% of the variance in mate urgency for women and men, 34% of the variation in women's body shame, 23% of the variance in men's body shame, 29% of the variation in women's partner shame and 38% of men's partner shame. The best-fitting gender model provided an excellent fit to the data,  $\chi^2(101) = 118.80, ns, p = .11, ns$ , NNFI = .98, CFI = .99, and RMSEA = .02. The best-fitting

gender model was not different from the *unconstrained gender model* indicating that no other constraints should be released,  $\chi^2(11) = 13.54$ , *ns* (see Table 3, Model 8).

Following the steps demonstrating mediation (Baron & Kenny, 1986), we tested whether a meaningful direct relationship exists between relationship contingency and body shame. When using EQS software, the direct relationship, in this case between relationship contingency and body shame, was tested separately in a nested model excluding the path from mate urgency to body shame. The nested direct effects model was performed with the same constraints released from the best-fitting model because these paths were known to differ between men and women. We named this model the *direct effects gender model* (see Table 3, Model 9). As expected, we found a significant path in this nested model between relationship contingency and body shame for both men ( $\beta = .24$ ) and women ( $\beta = .19$ ; see  $\beta$  values in parentheses in Figure 1). The next step of mediation involves demonstrating that relationship contingency predicted mate urgency, which we already have in Model 8. In Model 8, we showed that the path between relationship contingency and body shame became nonsignificant when the path from mate urgency to body shame was included.

To determine whether mate urgency significantly mediated the path between relationship contingency and body shame, we calculated Sobel's *t*-test using the unstandardized regression coefficients and standard errors from the best-fitting model. Sobel's *t*-test was performed separately for men ( $z = 2.57$ ,  $p < .02$ ) and women ( $z = 2.57$ ,  $p < .02$ ), and confirmed that mate urgency significantly mediated the path between relationship contingency and body shame for both groups.

Theoretically, it is also possible that mate urgency increased relationship contingency, which then increased body shame. Men and women who feel that they are running out of time to find a mate may also feel better about themselves if they are in a romantic relationship – and thus have higher relationship contingency. To test whether an alternative model with relationship contingency as the mediator fit the data better, we tested a model switching the placement of mate urgency and relationship contingency in the model (see Model 10 in Table 3). The *reversed causal gender model* fit the data significantly worse than the best-fitting gender model  $\chi^2(1) = 8.95$ ,  $p < .01$ ; however, the data are correlational, so that we cannot make causal conclusions.

## Structural Equation Modeling Analyses Nested Within Relationship Status

Because we found that both men and women in relationships reported less mate urgency than single men and women, we conducted an additional nested model to determine whether relationship status moderated the link between ei-

ther relationship contingency and (1) mate urgency or (2) body shame. On the one hand, it is possible that those participants who have relationships may no longer experience any urgency in finding marital partners because they feel as though they have found long-term, satisfying mates. On the other hand, the college students in our sample are unmarried, so we believed they may still experience some urgency because they have yet to reach a high level of mutual commitment and may still be searching for their ideal mates. To test for moderation, we tested whether the hypothesized model fit equally well for single and coupled participants.

To examine whether the hypothesized model fit the data equally well for single and coupled people, we examined the fit of the nested model constraining all paths to be equal (*the constrained relationship status model*). The constrained relationship status model provided a good fit to the data (see Table 3, Model 11). To examine whether the fully constrained relationship status model fit the data equally well for both single and coupled participants, we examined the modification indices to determine whether equality constraints should be released to improve the fit of the model. The LaGrange modification indices suggested the release of two constraints from (1) appearance contingency to partner body concern and (2) relationship contingency to partner body concern. The first constraint was released in the *revised model* (see Table 3, Model 12). The second constraint was released in Model 13, the *best-fitting relationship status model* (see Table 3). In addition, the best-fitting relationship status model provided an excellent fit to the data, superior to the revised,  $\chi^2(1) = 3.85$ ,  $p < .05$ , and the constrained model,  $\chi^2(2) = 6.37$ ,  $p < .05$ .

In the best-fitting relationship status model, relationship contingency predicted greater partner body concern for single individuals ( $\beta = .26$ ) but not for people in relationships ( $\beta = -.16$ , *ns*). We found no other differences by relationship status.

Overall, the model was consistent with our hypotheses. As expected, the link between mate urgency and body shame was significant for both single ( $\beta = .19$ ) and coupled participants ( $\beta = .24$ ), while the path from relationship contingency to body shame was not significant, suggesting mediation by mate urgency (see Figure 2). The best-fitting relationship status model fit the data as well as the completely *unconstrained relationship status model* indicating that no other constraints should be released,  $\chi^2(8) = 5.19$ , *ns* (See Table 3, Model 14).

Following the steps demonstrating mediation (Baron & Kenny, 1986), we tested whether a meaningful direct relationship exists between relationship contingency and body shame. In the *direct effects relationship status model* (see Table 3, Model 15), as expected, we found a significant path in this nested model between relationship contingency and body shame for both coupled ( $\beta = .13$ ) and single participants ( $\beta = .16$ ; see betas in parentheses in Figure 2). Sobel's *t*-test was performed separately for coupled ( $z = 2.44$ ,  $p < .03$ ) and single ( $z = 2.44$ ,  $p < .02$ )

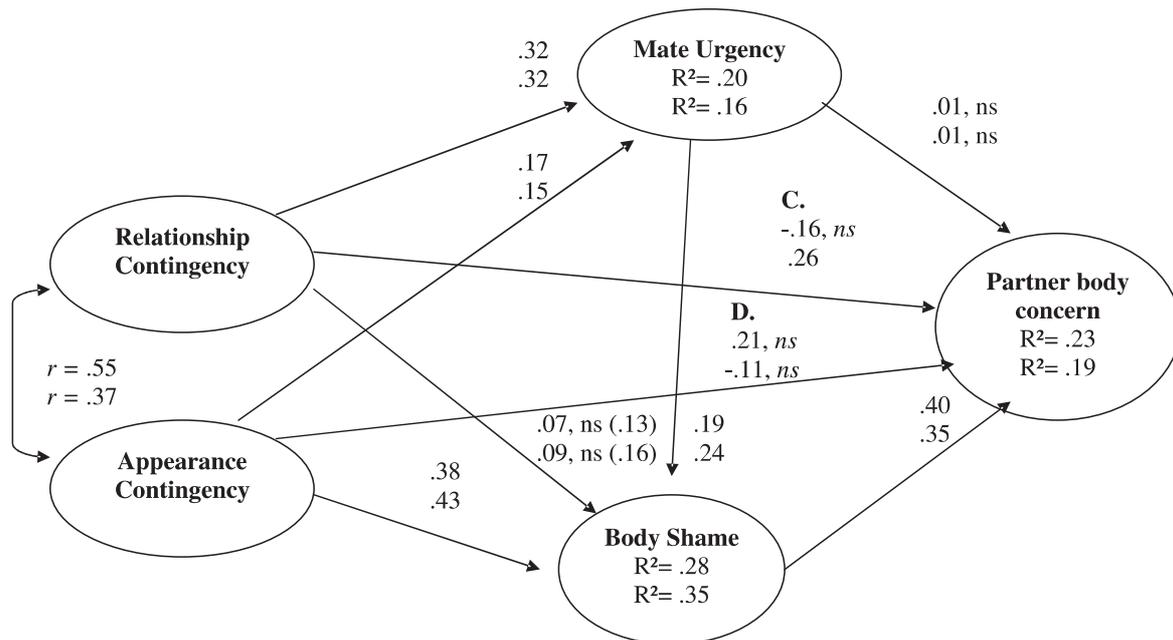


Figure 2. Structural model by relationship status.  $\beta$  values are significant at  $p < .05$  unless noted otherwise. The results from the best fitting relationship status model (Model 13, Table 3) are shown. The model was simultaneously estimated for single and coupled participants. The equality constraints from appearance contingency to partner body shame and from relationship contingency to partner body concern were released. Numbers in parentheses represent estimates obtained from the direct effects relationship status model (Model 15, Table 3) to illustrate significant paths between relationship contingency and body shame that are then mediated by mate urgency in the best-fitting gender model.  $\beta$  values for single people are shown at the bottom, coupled people on the top.

participants and confirmed that mate urgency significantly mediated the relationship between relationship contingency and body shame for both groups. This model explains 28% and 35% of the variance in body shame for people in relationships and single people, respectively (see Figure 2).

## Discussion

We found strong support for our hypotheses. Relationship contingency predicted both men's and women's body shame, which was mediated by greater mate urgency. In addition, personal body shame predicted greater concerns about the appearance of romantic partners for both men and women. Unexpectedly, men's mate urgency predicted greater romantic partner body concern; however, these findings should be interpreted in light of gender differences that emerged on several of these variables. Women showed greater personal body shame in general (i.e., greater appearance contingency and personal body shame) and greater mate urgency, although men reported greater partner body concern than women. Interestingly, men were just as likely as women to derive self-worth from romantic relationships.

## Men's and Women's Relationship Contingency

Romantic relationships play a central role in both men's and women's lives. The benefits they receive from having romantic relationships combined with the societal pressure that they experience to settle down, have children, and "live happily ever after" may lead some men and women to derive their self-worth from having romantic relationships (i.e., relationship contingency). In the present study, we found that men were just as likely as women to derive self-esteem from romantic relationships. Most research examining interpersonal sources of self-esteem has focused on general sources of self-esteem, not romantic partners (e.g., Josephs, Markus, & Tafarodi, 1992). This work suggested that women had more relational self-construals than men, i.e., were more likely to include important others in their self-concept and receive boosts to self-esteem when reminded of important others (Cross & Madsen, 1997; Gabriel & Gardner, 1999; Josephs et al., 1992). Romantic relationships, however, represent unique sources of information for the self. Moreover, romantic relationships have a host of physical and emotion benefits that may boost self-esteem for both men and women (see Kiecolt-Glaser & Newton, 2001; Sedikides, Oliver, & Campbell, 1994) – some even argue that the benefits are stronger for men (e.g., Ross, Mirowsky, & Goldstein, 1990). In addition, some

assert that men are less likely to terminate romantic relationships and have more difficult transitions after relationship termination (Albrecht, Bahr, & Goodman, 1983; Hill, Rubin, & Peplau, 1976). If we take into account the benefits of relationships for men and their response to relationship termination, it is not surprising that men were just as likely as women to report relationship contingency.

In the present study, relationship contingency emerged as a predictor of both men's and women's body shame via greater mate urgency. Relationship contingency predicted body concerns because people who were contingent on relationships had greater motivation to find permanent partners. Thus, people who are relationship contingent may engage in a variety of behaviors to optimize their chances of finding romantic partners. In the present study, we focused on their attitudes toward their physical appearance. We did so because body concerns and unhealthy eating habits are quickly becoming an epidemic in today's society, with increasing numbers of men and women experiencing body dissatisfaction (Cohane & Pope, 2001; Frith & Gleeson, 2004; Hoyt & Kogan, 2001; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). Moreover, the link between the pursuit of romantic relationships and appearance concerns remains understudied.

It is important to note that relationship contingency predicted body shame controlling for appearance contingency, and that relationship contingency was positively correlated with appearance contingency, suggesting that, while relationship contingency overlaps some with appearance contingency, relationship contingency independently predicts body shame. However, it is unclear from the present study *why* mate urgency predicts body shame if not through appearance contingency. It is possible that mate urgency makes men and women value appearance as a means of appealing to potential romantic partners but not necessarily as a source of self-worth. It is also possible that relationship contingency promotes instability of self-worth, which then predicts mate urgency and body shame (Knee, Canevello, Bush & Cook, in press). Future studies should explore what makes relationship contingency and mate urgency unique predictors of body shame. In addition, future studies should examine the links between relationship contingencies and other external contingencies of self-worth, which may also predict body shame and symptoms of disordered eating (e.g., approval contingency; Sanchez & Crocker, 2005).

Future studies should explore as well whether the costs of relationship contingency extend beyond physical appearance concerns. Although relationship contingency was found to be unrelated to relationship satisfaction in the present study (see Footnote 1; see also Knee et al., in press; Sanchez & Kwang, 2007), relationship contingency has been found to predict greater sensitivity to negative and positive relationship events (Knee et al., in press). People who base their self-worth on having romantic relationships may have poorer responses to break-ups including more severe and persistent negative affect. People who are high in relationship contingency experience more daily fluctua-

tions in self-esteem and the valence of their emotions corresponding to their momentary relationship quality (Knee et al., in press). Such instability of self-worth can promote poor psychological health (Kernis, 2003). When negative events happen in relationships or relationships terminate, relationship contingencies are not met, which can cause distress among those contingent upon them. This may even exacerbate the known costs of relationship contingency such as body shame, mate urgency, and symptoms of disordered eating (Sanchez & Kwang, 2007). In addition, it is unclear whether being in a state of mate urgency predicts effective or ineffective dating strategies. For example, do people become less selective in partner selection when they experience mate urgency?

Relationship contingency may also be related to some positive outcomes within the context of relationships; it may be associated with greater relationship commitment including relationship longevity or better relationship communication. Some evidence supports these possibilities. Couples who are mutually contingent on relationships indicate greater commitment to their relationships (but not greater satisfaction in relationships) (Knee et al., in press). Future research should also address the possible moderating role of relationship commitment in body shame, mate urgency, other health outcomes and relationship processes not measured in the present study. In the present study, only relationship status was measured, not mutual commitment. It is possible that partners in mutually committed relationships may feel less mate urgency and therefore reduced body shame.

## The Perpetuating Cycle of Body Concerns

Body shame and appearance focus have been linked to numerous negative outcomes such as greater symptoms of disordered eating patterns, lower psychological well-being, and less satisfying sexual experiences (Davison & McCabe, 2005; Noll & Fredrickson, 1998; Tiggeman & Kuring, 2004). The present study extended the costs of body shame to romantic relationships by demonstrating that personal body concerns predicted greater concerns about the appearance of romantic partners. These findings are consistent with previous research that showed personal self-objectification (i.e., valuing the external appearance of the body over the competence and functioning of the body; Fredrickson & Roberts, 1997) caused men and women to objectify others (Beebe et al., 1996; Strelan & Hargreaves, 2005). The present study demonstrated a similar phenomenon in the context of romantic relationships, suggesting that personal body concerns may extend to concern over romantic partners' appearance for both men and women.

One possible explanation for body concern extension may be the underlying role of perfectionism in body-image concerns: People who have greater body concerns have higher levels of perfectionism (Hewitt, Flett, & Ediger, 1995). The tendency toward perfectionism may explain

greater appearance concerns for romantic partners among those who have greater appearance standards for themselves. Future research should examine the possible role of perfectionism in spreading body concerns. In addition, the spreading nature of body concerns might shed light on previous work on weight related criticism by romantic partners (e.g., Sheets & Ajmere, 2005). For example, those who have greater personal body issues may be most likely to criticize their romantic partners. Of note, although women reported significantly greater personal body shame than men, men reported significantly greater partner body concern than women. This finding could be the result of the gender of the relationship partner; thus, beauty may be still more socially valued in women, whereas some other attribute (social status, income, etc.) may be more valued in men (Buss & Barnes, 1986). In the present study men were found to be more critical of their female partners' appearance; however women's criticism of men's financial success was not assessed. Future research should examine whether higher relationship contingency and mate urgency among women is associated with being more critical of a male partner's income and social status.

### Limitations of the Present Study

The study presented used self-report measures, and many of the findings are correlational in nature; thus, causality and social-desirability concerns apply. Although social desirability as measured by the Crowne-Marlowe (1960) measure did not appear to alter the model we tested (see Footnote 2), the usual caveats regarding self-report measures pertain, and future research should include less obtrusive measures of relationship importance and body concerns. Also, the present studies included only heterosexual participants. Although the present findings suggest that the gender of one's intended romantic partner did not alter the results, future research should explore whether this model also applies to same-sex relationships. Finally, because our study focuses on college-age men and women, our findings might be limited to premarital men and women who are in the process of finding marital partners. At the same time, premarital populations represent an important stage of relationship development that remains understudied (Cate, Levin, & Richmond, 2002). Because the present study was cross-sectional in nature, we cannot determine whether the relationship between relationship contingency and mate urgency causally changes over time. Future research should sample married and premarital participants over a span of time to assess any changes in the pattern of results found here.

### Conclusions

The present study contributes to a growing literature that examines the relational aspects of body and physical ap-

pearance concerns. The present findings illustrate how men and women alike strive for the ideal physique, in part, to obtain and maintain romantic relationships. For people whose self-worth is invested in having romantic relationships, finding relationships may become urgent, driving both men and women to be concerned about their physical appearance.

### References

- Albrecht, S.L., Bahr, H.M., & Goodman, K.L. (1983). *Divorce and remarriage: Problems, adaptations, and adjustments*. Westport, CT: Greenwood.
- Aron, A., & Aron, E.N. (1986). *Love as the expansion of self: Understanding attraction and satisfaction*. New York: Hemisphere.
- Bandalos, D.L. (2002). The effects of item parceling on goodness-of-fit and parameter estimate bias in structural equation modeling. *Structural Equation Modeling, 9*, 78–102.
- Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- 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.
- Beebe, D.W., Holmbeck, G.N., Schober, A., Lane, M., & Rosa, K. (1996). Is body focus restricted to self-evaluation? Body focus in the evaluation of self and others. *International Journal of Eating Disorders, 20*, 415–422.
- Ben Hamida, S., Mineka, S., & Bailey, J.M. (1998). Sex differences in perceived controllability of mate value: An evolutionary perspective. *Journal of Personality and Social Psychology, 75*, 953–966.
- Buss, D.M., & Barnes, M. (1986). Preferences in human mate selection. *Journal of Personality and Social Psychology, 50*, 559–570.
- Cate, R.M., Levin, L.A., & Richmond, L.S. (2002). Premarital relationship stability: A review of recent research. *Journal of Social and Personal Relationships, 19*, 261–284.
- Cohane, G.H., & Pope, H.G. (2001). Body image in boys: A review of the literature. *International Journal of Eating Disorders, 29*, 373–379.
- Cohen, S. (2004). Social relationships and health. *American Psychologist, 59*, 676–684.
- Crandall, C.S. (1988). Social contagion of binge eating. *Journal of Personality and Social Psychology, 55*, 588–598.
- 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., Sommers, S.R., & Luhtanen, R.K. (2002). Hopes dashed and dreams fulfilled: Contingencies of self-worth and graduate school admissions. *Personality and Social Psychology Bulletin, 28*, 1275–1286.
- Crocker, J., & Wolfe, C.T. (2001). Contingencies of self-worth. *Psychological Review, 108*, 593–623.

- Cross, S., & Madsen, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin*, *122*, 5–37.
- Crowne, D.P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, *24*, 349–354.
- Davison, T.E., & McCabe, M.P. (2005). Relationships between men's and women's body image and their psychological, social, and sexual functioning. *Sex Roles*, *52*, 463–475.
- Frazier, P.A., Tix, A.P., & Barron, K.E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, *51*, 115–134.
- Fredrickson, B.L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, *21*, 173–206.
- Frith, H., & Gleeson, K. (2004). Clothing and embodiment: Men managing body image and appearance. *Psychology of Men and Masculinity*, *5*, 40–48.
- Gabriel, S., & Gardner, W.L. (1999). Are there "his" and "hers" types of interdependence? The implications of gender differences in collective versus relational interdependence for affect, behavior, and cognition. *Journal of Personality and Social Psychology*, *77*, 642–655.
- Gaesser, G.A. (1996). *Big fat lies: The truth about your weight and your health*. New York: Fawcett Columbine.
- Geller, J., Zaitsoff, S.L., & Srikaneswaran, S. (2002). Beyond shape and weight: Exploring the relationship between nonbody determinants of self-esteem and eating disorder symptoms in adolescent females. *International Journal of Eating Disorders*, *32*, 344–351.
- Gortmaker, S.L., Must, A., Perrin, J.M., Sobol, A.M., & Dietz, W.H. (1993). Social and economic consequences of overweight in adolescence and young adulthood. *New England Journal of Medicine*, *329*, 1008–1012.
- Hewitt, P.L., Flett, G.L., & Ediger, E. (1995). Perfectionism traits and perfectionistic self-presentation in eating disorder attitudes, characteristics, and symptoms. *International Journal of Eating Disorders*, *18*, 317–26.
- Hill, C.T., Rubin, Z., & Peplau, L.A. (1976). Breakups before marriage: The end of 103 affairs. *Journal of Social Issues*, *32*, 147–168.
- Hoyt, W.D., & Kogan, L.R. (2001). Satisfaction with body image and peer relationships for males and females in a college environment. *Sex Roles*, *45*, 199–215.
- Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1–55.
- Josephs, R.A., Markus, H.R., & Tafarodi, R.W. (1992). Gender and self-esteem. *Journal of Personality and Social Psychology*, *63*, 391–402.
- Kernis, M.H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry*, *14*, 1–26.
- Kiecolt-Glaser, J.K., & Newton, T.L. (2001). Marriage and health: His and hers. *Psychological Bulletin*, *127*, 472–503.
- Kirkpatrick, L.A., & Ellis, B.J. (2004). An evolutionary-psychological approach to self-esteem: Multiple domains and multiple functions. In M.B. Brewer & M. Hewstone (Eds.), *Self and social identity* (pp. 52–77). Malden, MA: Blackwell Publishing.
- Klem, L. (2000). Structural equation modeling. In L.G. Grimm & P.R. Yarnold (Eds.), *Reading and understanding more multivariate statistics* (pp. 227–260). Washington, DC: American Psychological Association.
- Kline, R.B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford.
- Knee, C.R., Canevello, A., Bush, A.L., & Cook, A. (in press). Relationship-contingent self-esteem and the ups and downs of romantic relationships. *Journal of Personality and Social Psychology*.
- Lamb, C.S., Jackson, L.A., Cassiday, P.B., & Priest, D.J. (1993). Body figure preferences of men and women: A comparison of two generations. *Sex Roles*, *28*, 345–358.
- Leary, M.R., Tambor, E.S., Terdal, S.K., & Downs, D.L. (1995). Self-esteem as an interpersonal monitor: the sociometer hypothesis. *Journal of Personality and Social Psychology*, *68*, 518–530.
- Lindberg, S.M., Hyde, J.S., & McKinley, N.M. (2006). A measure of objectified body consciousness for preadolescent and adolescent youth. *Psychology of Women Quarterly*, *30*, 65–76.
- McKinley, N.M., & Hyde, J.S. (1996). The objectified body consciousness scale: Development and validation. *Psychology of Women Quarterly*, *20*, 181–215.
- Mikulincer, M., Florian, V., & Hirschberger, G. (2003). The existential function of close relationships: Introducing death into the science of love. *Personality and Social Psychology Review*, *7*, 20–40.
- Murray, S.L., Griffin, D.W., Rose, P., & Bellavia, G.M. (2003). Calibrating the sociometer: The relational contingencies of self-esteem. *Journal of Personality and Social Psychology*, *85*, 63–84.
- Noll, S.M., & Fredrickson, B.L. (1998). A mediational model linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly*, *22*, 623–636.
- Pope, H.G., Gruber, A.J., Mangweth, B., Bureau, B., deCol, C., Jouvent, R., & Hudson, J.I. (2000). Body image perception among men in three countries. *American Journal of Psychiatry*, *157*, 1297–1301.
- Preacher, K.J., & Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, *36*, 717–731.
- Regan, P.C., Levin, L., Sprecher, S., Christopher, F.S., & Cate, R. (2000). Partner preferences: What characteristics do men and women desire in their short-term sexual and long-term romantic partners? *Journal of Personality and Human Sexuality*, *12*, 1–21.
- Raykov, T., Tomer, A., & Nesselroade, J.R. (1991). Reporting structural equation modeling results in Psychology and Aging: Some proposed guidelines. *Psychology and Aging*, *6*, 499–503.
- Ross, C.E., Mirowsky, J., & Goldstein, K. (1990). The impact of the family on health: The decade in review. *Journal of Marriage and the Family*, *52*, 1059–1078.
- Salusso-Deonier, C.J., Markee, N.L., & Pedersen, E.L. (1993). Gender differences in the evaluation of physical attractiveness ideals for male and female body builds. *Perceptual and Motor Skills*, *76*, 1155–1167.
- Sanchez, D.T., & Crocker, J. (2005). How investment in gender ideals affects well-being: The role of external contingencies of self-worth. *Psychology of Women Quarterly*, *29*, 63–77.
- Sanchez, D.T., & Kwang, T. (2007). When the relationship becomes her: Revisiting women's body concerns from a relationship contingency perspective. *Psychology of Women Quarterly*, *31*, 401–414.
- Sedikides, C., Oliver, M.B., & Campbell, W.K. (1994). Perceived benefits and costs of romantic relationships for women and men: Implications for exchange theory. *Personal Relationships*, *1*, 5–21.

- Segrin, C., & Nabi, R.L. (2002). Does television viewing cultivate unrealistic expectations about marriage? *Journal of Communication*, 52, 247–263.
- Sheets, V., & Ajmere, K. (2005). Are romantic partners a source of college students' weight concern? *Eating Behaviors*, 6, 1–9.
- Singh, D., & Young, R.K. (1995). Body weight, waist-to-hip ratio, breasts, and hips: Role in judgments of female attractiveness and desirability for relationships. *Ethology & Sociobiology*, 16, 483–507.
- Smith, J.E., Waldorf, V.A., & Trembath, D.L. (1990). "Single white male looking for thin, very attractive . . ." *Sex Roles*, 23, 675–685.
- Sobel, M.E. (1982). Asymptotic confidence intervals for indirect effects in structural equations models. In S. Leinhardt (Ed.), *Sociological methodology 1982* (pp. 290–312). San Francisco: Jossey-Bass.
- Strelan, P., & Hargreaves, D. (2005). Women who objectify other women: The vicious circle of objectification? *Sex Roles*, 52, 707–712.
- Thompson, J.K., Heinberg, L.J., Altabe, M.N., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association.
- Tiggemann, M., & Kuring, J.K. (2004). The role of body objectification in disordered eating and depressed mood. *British Journal of Clinical Psychology*, 43, 299–311.
- Tomarken, A.J., & Kirschenbaum, D.S. (1982). Self-regulatory failure: Accentuate the positive? *Journal of Personality and Social Psychology*, 43, 584–597.

Received July 25, 2007

Revision received January 3, 2008

Accepted January 14, 2008

---

Diana Sanchez

Department of Psychology

Rutgers University

53 Avenue E

Piscataway, NJ 08854-8040

USA

Tel. +1 732 445-3552

E-mail disanche@rci.rutgers.edu