

Exploring a Model of Intuitive Eating With College Women

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Intuitive eating (i.e., eating based on physiological hunger and satiety cues rather than situational and emotional cues) recently has gained recognition as an adaptive eating style. The present study explored a model of intuitive eating based on a foundation of acceptance with 2 samples of college women. Path analysis with the 1st sample ($N = 181$) revealed that the acceptance model provided an excellent fit to the data, and latent variable structural equation modeling with the 2nd sample ($N = 416$) cross-validated this model. Specifically, general unconditional acceptance predicted body acceptance by others, body acceptance by others predicted an emphasis on body function over appearance, body acceptance by others and an emphasis on body function predicted body appreciation, and an emphasis on body function and body appreciation predicted intuitive eating.

Keywords: intuitive eating, body appreciation, body acceptance, body function, objectification theory

The literature on body image disturbance and disordered eating is rife, and many psychologists (e.g., Fredrickson & Roberts, 1997; Hund & Espelage, 2005; Mazzeo & Espelage, 2002; Stice, Nemeroff, & Shaw, 1996; Tylka & Subich, 2004) have offered model frameworks that meaningfully combine variables to explain women's body dissatisfaction and eating disorder symptomatology. However, theorists and researchers have not yet explored how variables might work together to predict positive body image and adaptive eating practices. Focusing on positive rather than negative body image and adaptive rather than maladaptive eating is reflective of the identification of assets and behaviors that help people flourish (Seligman & Csikszentmihalyi, 2000) and is consistent with the mission of counseling psychology (Gelso & Fretz, 2001). Such investigations would contribute to counseling psychologists' understanding of the variables that best foster positive body image and adaptive eating, which in turn would be useful for their efforts geared toward preventing body image disturbance and disordered eating.

Recently, scholars have recognized body appreciation and intuitive eating as positive body image and eating behavior, respectively (Avalos, Tylka, & Wood-Barcalow, 2005; Tylka, 2006). *Body appreciation* reflects unconditional approval and respect of the body; it is characterized by four components: (a) favorable evaluations of the body regardless of perceived congruence with the societal ideal appearance; (b) body acceptance in spite of weight, body shape, and imperfections; (c) respect for the body by means of attending to its needs and engaging in healthy behaviors; and (d) protection of the body by rejecting unrealistic images of

the thin-ideal prototype portrayed in the media (Avalos et al., 2005). Among college women, body appreciation was positively associated with psychological well-being (i.e., self-esteem, life satisfaction, proactive coping, and optimism) and negatively associated with body image disturbance and disordered eating (Avalos et al., 2005).

Intuitive eating is defined as a strong connection with, understanding of, and eating in response to internal physiological hunger and satiety cues coupled with a low preoccupation with food (Tribole & Resch, 1995; Tylka, 2006). It involves awareness of how the body responds to certain foods; people who eat intuitively typically choose foods that help their bodies function well and view taste as only one factor involved in food choice. Scholars have identified three central and interrelated components of intuitive eating: unconditional permission to eat when hungry and what food is desired at the moment (by not ignoring hunger signals or classifying food into acceptable and nonacceptable categories), eating to satisfy physical hunger rather than to cope with emotional fluctuations and/or distress, and reliance on (reflecting an awareness and trust of) internal hunger and satiety cues to determine when and how much to eat (Carper, Fisher, & Birch, 2000; Faith, Scanlon, Birch, Francis, & Sherry, 2004; Polivy & Herman, 1999; Tribole & Resch, 1995; Tylka, 2006). Research has supported the adaptive properties of intuitive eating, as it was positively associated with self-esteem, life satisfaction, proactive coping, and optimism and negatively associated with body image disturbance and disordered eating among college women (Tylka, 2006). Moreover, intuitive eating does not simply reflect low levels of eating disorder symptomatology. Researchers have found that intuitive eating's second and third components were uniquely associated with college women's psychological well-being after controlling for eating disorder symptomatology (Tylka & Wilcox, in press), supporting their distinctiveness from low levels of eating disorder symptomatology.

Given that a theoretical framework that discusses how variables combine to predict body appreciation and intuitive eating has yet to be proposed, the purposes of the present study were threefold: (a) integrate the literature on possible predictors of these adaptive

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variables and propose a cohesive model illustrating how they might work together; (b) test this model empirically with women; and (c) if this model is supported, cross-examine the model with another sample. We chose to only explore this model with women, as body appreciation and intuitive eating have only been explored with women, and it is uncertain whether the known features of these variables generalize to men. In determining which variables might predict body appreciation and intuitive eating, we consulted the few theoretical writings (i.e., Tribole & Resch, 1995) and empirical studies (i.e., Avalos et al., 2005; Tylka, 2006) on these variables, the theory on acceptance (e.g., Rogers, 1961), and the abundant literature on predictors of women's body image disturbance and disordered eating. We refrained from developing our model solely on the basis of the literature on body dissatisfaction and disordered eating, as this literature is rooted in pathology and may not adequately identify individual strengths and areas of resilience (Seligman & Csikszentmihalyi, 2000). Yet, because of the history, prevalence, and empirical soundness of this literature, we determined that integrating it would enhance our model.

Development of a Model of Intuitive Eating

It has been suggested that the tendency to eat intuitively is inborn, but the likelihood of continuing this eating style is determined by an accepting environment (Carper et al., 2000; Tribole & Resch, 1995). Rooted in humanistic theory is the belief that when individuals perceive that significant others accept them for who they are, they are able to align themselves with their actualizing tendency, an innate process that helps individuals expand, extend, and develop in a growth-enhancing way (Rogers, 1961). Intuitive eating can be one expression of the actualizing tendency, as this eating style reflects the valuing of inner experiences and honoring of bodily needs. Thus, the degree to which people perceive that significant people in their life accept their internal self and external body shape and weight, the more likely they are to honor their internal hunger and satiety signals and eat according to these signals. Conversely, the lack of perceived acceptance can cause individuals to lose touch with their actualizing tendency and instead align themselves with society for guidance, substituting external rules (e.g., diet plans) for their inner experiences. Acceptance, then, became the core environmental variable represented in our model.

A well-respected model in the literature on eating disorders (i.e., objectification theory; Fredrickson & Roberts, 1997) also has explored environmental contributions to body orientation and eating behavior, but this model has focused on how negative environmental conditions contribute to women's tendency to engage in disordered eating. This model states that women whose bodies are routinely objectified and scrutinized have a higher tendency to habitually monitor their outer appearance, which then leads to body shame, as women perceive themselves falling short of the unrealistic and unattainable cultural thin-ideal standard. Body shame, then, directly contributes to disordered eating, as women attempt to restrict their eating to try to achieve an appearance similar to this cultural standard. Therefore, the influence of sexual objectification on disordered eating is indirect in that it is explained by several variables. Research has supported the pathways within objectification theory (e.g., Moradi, Dirks, & Matteson, 2005; Tylka & Hill, 2004).

Because negative environmental influences indirectly contribute to women's disordered eating, it seems reasonable to argue that positive environmental influences (i.e., others' general unconditional acceptance and others' acceptance of their body shape and weight) could indirectly contribute to women's intuitive eating behaviors. In our acceptance model, we assert that general and body acceptance would contribute to women's emphasis on how their bodies function and feel internally rather than their outer appearance. Body acceptance by others may also contribute to women's appreciation of their bodies. Furthermore, an emphasis on body function would likely contribute to women's positive feelings toward their bodies (i.e., body appreciation) and engagement in positive behaviors (e.g., intuitive eating) to take care of their bodies' internal needs to keep them functioning well. Also, women who appreciate their bodies may be likely to eat intuitively to further nurture and respect their bodies. Next, we present the variables included within our acceptance model and provide theoretical and empirical support for each proposed path.

General Unconditional Acceptance

Women who do not receive unconditional acceptance by an influential person may turn to societal ideals for guidance on how to appear (through internalizing the thin-ideal stereotype) and act (habitually monitoring their appearance; Fredrickson & Roberts, 1997). Conversely, those who perceive that they are unconditionally accepted do not have a drive to abandon their real self (i.e., true qualities) and strive toward an ideal self (i.e., qualities they wish they had; Rogers, 1964). These individuals then are likely to focus on their inner experiences, or how their bodies function and feel, rather than how they appear to others. Thus, in our acceptance model presented in Figure 1, we hypothesized that perceived acceptance from the most influential person in a woman's life when she was growing up would predict her emphasis on body function (Path a).

Furthermore, if a woman functions within an environment in which she perceives general unconditional acceptance, then she is likely to perceive that others accept her body and do not want her to try to modify it through restrained eating. Perceptions of general unconditional acceptance, then, could encourage women to feel that their bodies are accepted by others. Research has shown that low levels of unconditional acceptance from friends and family (i.e., low social support) are associated with pressures to lose weight among college women (Tylka & Subich, 2004). Consequently, we hypothesized that general unconditional acceptance would predict body acceptance by others within our acceptance model (Path b).

Body Acceptance by Others

When women perceive that others accept their bodies, they may be less preoccupied with changing their outer appearance and pay more attention to how they feel and function (Avalos et al., 2005). Indeed, research has shown that pressures to be thin by significant others predict an increase in women's habitual monitoring of their outer appearance and a decrease in women's emphasis on how their bodies function (Tylka & Hill, 2004). Caregivers who send messages to children that they need to lose weight and cannot be trusted around food often adopt coercive strategies to exert control

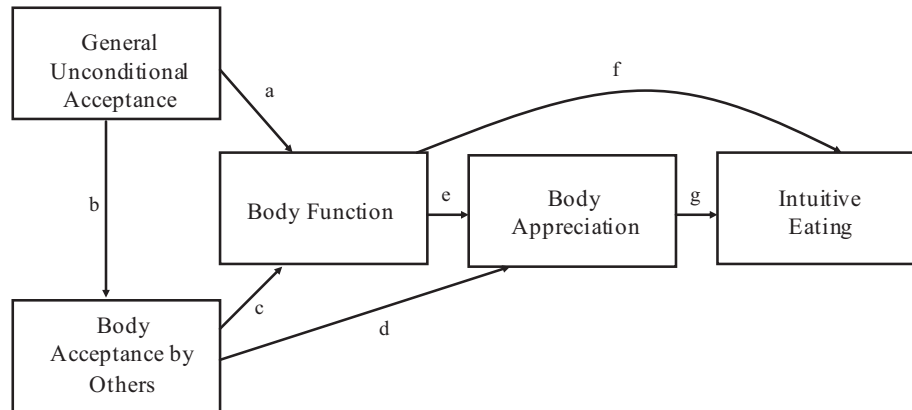


Figure 1. The hypothesized model of intuitive eating. Labels a–g represent our proposed unidirectional paths between the model constructs.

over children's eating behaviors (Birch, Johnson, Andresen, Petersen, & Schulte, 1991). Not only are these strategies counterproductive in that they are related to the emergence of dietary restraint and weight gain among young girls, but they also teach children to replace their internal hunger and satiety signals with external cues to dictate where, when, and how much to eat (Birch, Fisher, & Davison, 2003; Carper et al., 2000). Thus, via the encouragement of others who are critical of their bodies, women learn to eat to try to regulate their appearance instead of listening to how their bodies function and respond to food. Given this theory and research, we hypothesized that perceived body acceptance by others would predict an emphasis on body function in our acceptance model (Path c).

The perception that others accept their bodies also is likely to contribute to women's positive feelings toward their bodies, including their tendency to respect and appreciate their bodies (Avalos et al., 2005; Tylka, 2006). Indeed, others' opinions have a profound effect on how individuals feel about their bodies (Tantleff-Dunn & Gokee, 2002). Body dissatisfaction or shame is thought to occur when the discrepancy between a woman's body and the cultural ideal is brought to her attention (Fredrickson & Roberts, 1997). Women who receive messages that their bodies do not need to be altered physically are unlikely to experience this discrepancy; hence, their appreciation for their bodies is not reduced. It has been demonstrated that perceived pressure to become thinner from significant others and the media predicts body dissatisfaction among girls and women (Stice, Nemeroff, & Shaw, 1996; Tylka & Subich, 2004), even after accounting for the contribution made by habitual body monitoring of appearance (Tylka & Hill, 2004). Therefore, we hypothesized that perceived body acceptance by others would predict body appreciation in our acceptance model (Path d).

In addition, we predicted that both body appreciation and body function would explain or mediate the relationship between body acceptance by others and intuitive eating. Our rationale for this proposition is that the extent to which body acceptance by others influences whether women eat intuitively is dependent on their adoption of a positive body orientation (Tribole & Resch, 1995). In the eating disorders literature, a negative body orientation accounts for the relationship between pressure for thinness and disordered eating (Tylka & Hill, 2004; Tylka & Subich, 2004).

Body Function

Women who focus on how their bodies function and feel internally rather than their external appearance are believed to be more likely to appreciate their bodies by taking care of their needs to keep them functioning well (Tylka, 2006). Research has provided some evidence for this theory, as women's tendency to habitually monitor their appearance (i.e., body surveillance) was negatively related to their tendency to appreciate their bodies (Avalos et al., 2005). Moreover, tests of the objectification theory model have revealed that body surveillance predicts body shame (Moradi et al., 2005; Tylka & Hill, 2004). Given this theory and research, we hypothesized that an emphasis on body function would predict body appreciation in our acceptance model (Path e).

An emphasis on body function also may contribute to women's tendency to display intuitive eating behaviors, as women with a functional orientation toward their bodies may eat according to their internal hunger and satiety signals, which would allow their bodies to function more efficiently (Tribole & Resch, 1995; Tylka, 2006). Research also has demonstrated that habitual body monitoring of appearance predicted disordered eating among college women, even after accounting for the variance in disordered eating explained by body shame (Moradi et al., 2005). Thus, we hypothesized that an emphasis on body function would predict intuitive eating (Path f).

Body Appreciation

Women who respect and appreciate their bodies are more aware of their bodily needs, including their internal hunger and satiety signals (Avalos et al., 2005; Tribole & Resch, 1995). Thus, these women may be more likely to eat according to these signals rather than situational factors (e.g., time of day, diet plan, mere presence of food; Tylka, 2006). A vast amount of research has indicated that women who do not appreciate their bodies (i.e., have high levels of body dissatisfaction or shame) engage in disordered eating (e.g., Moradi et al., 2005; Stice, Nemeroff, & Shaw, 1996; Tylka & Hill, 2004; Tylka & Subich, 2004). It stands to reason, then, that women who appreciate their bodies would honor their bodies by engaging in adaptive eating. As a result, we hypothesized that body appreciation would predict intuitive eating within our acceptance model (Path g).

In sum, we tested a model including contextual and intrapersonal variables thought to predict body appreciation and intuitive eating. We specifically examined the following five hypotheses:

Hypothesis 1: Perceived general unconditional acceptance predicts women's emphasis on body function and their perceptions that others accept their bodies.

Hypothesis 2: Perceived body acceptance from others predicts women's emphasis on body function and their tendency to appreciate their bodies.

Hypothesis 3: Body function predicts body appreciation.

Hypothesis 4: Body function and body appreciation predict intuitive eating.

Hypothesis 5: The link of perceived body acceptance by others to intuitive eating is fully mediated by both body function and body appreciation.

Study 1

The purpose of Study 1 was to conduct an initial examination of the fit of the model presented in Figure 1 and to evaluate whether the hypothesized paths are upheld with college women.

Method

Participants and Procedure

Responses from 5 women who did not complete at least 90% of any given measure were not entered into the data set. The final data set included 181 women from a large Midwestern university who ranged in age from 17 to 55 years ($M = 20.24$, $SD = 5.17$). This sample size exceeded the 120 cases needed to estimate the model (on the basis of a participant-to-parameter ratio of 10:1; Bentler, 1990). Women identified as European American (82.2%), multiracial (8.3%), African American (5.0%), Asian American (3.9%), or Native American (0.6%). They represented first-year students (68.3%), sophomores (17.8%), juniors (5.6%), or seniors (6.7%). Two participants (1.1%) did not specify their college rank. Participants described themselves as middle class (45.3%), upper middle class (39.7%), working class (12.3%), or upper class (2.8%).

Women enrolled in introductory psychology courses volunteered to participate through the psychology department's organized research program. The study was described as an investigation of their relationships with others, body attitudes, and eating habits. After we guaranteed the women anonymity and obtained their informed consent, they completed the surveys in a classroom used as a research laboratory. Participants received credit that was applied toward their class grade. The measures were counterbalanced to control for order effects.

Constructs and Measures

Perceived unconditional acceptance from the most influential other. The 36-item version of the original 86-item Barrett-Lennard Relationship Inventory (BLRI; Barrett-Lennard, 1962; Claiborn, Crawford, & Hackman, 1983) was used to measure women's perceived general unconditional support from a significant other. Specifically, each woman was instructed to think about the most important and influential person in her life as she was growing up and to answer the items (e.g., "She/he has respected me as a person") on a 6-point scale ranging from 1 (*very false*) to 6 (*very true*) with that person in mind. Although the BLRI can be divided into subscales

(e.g., Empathy, Unconditionality of Regard, Genuineness, Resistance), these subscales have been found to be interrelated among college women, which suggests that the subscales are influenced by a single overall component (Mills & Zytowski, 1967). Thus, a total score can be computed that reflects overall perceived unconditional acceptance. In the present study, we only used the total score (in lieu of individual subscales) and averaged the item responses, with higher scores reflecting greater perceived unconditional acceptance from the most influential other. Research has supported the internal consistency reliability ($\alpha = .87$) and 2-week test-retest reliability ($r = .90$) of its scores (Gurman, 1977). For the present study, alpha was .84 for the BLRI scores. In support of its construct validity, the BLRI total score was positively related to unconditional self-regard ($r = .26$), psychological hardness ($r = .26$), and instrumentality ($r = .24$) with college women (Wilcox, 2006).

Body acceptance by others. Because no extant survey assesses specific forms of environmental acceptance regarding body shape and weight, a measure was developed for the purposes of the present study. The Body Acceptance by Others Scale (BAOS) was created by modifying items from the Perceived Sociocultural Pressures Scale (PSPS; Stice, Ziemba, Margolis, & Flick, 1996), a scale yielding considerable psychometric support with high school and college women. The PSPS measures women's reported pressure for thinness from significant others (i.e., family, friends, partners) and the media. The main two item stems on the PSPS, "I've felt pressure from _____ to lose weight" and "I've noticed a strong message from _____ to have a thin body" were changed to "I've felt acceptance from _____ regarding my body shape and/or weight" and "_____ has/have sent me the message that my body shape and weight are fine" on the BAOS. Participants rated these two item stems first with their friends in mind, second with their family in mind, third with people whom they have dated in mind, fourth with society in mind, and fifth with the media in mind. Thus, there are a total of 10 BAOS items. Similar to the PSPS, participants were instructed to rate the BAOS items on a 5-point scale ranging from 1 (*never*) to 5 (*always*). Items are averaged, with higher scores reflecting greater perceived acceptance of body shape and weight.

A counseling psychologist interested in body image was consulted to review the items, and she indicated that the items accurately reflected the content domain. When we piloted this measure with 66 college women (age in years: $M = 22.03$, $SD = 5.67$; 78.8% European American), its scores yielded evidence of internal consistency reliability ($\alpha = .91$), retest reliability over a 3-week period ($r = .85$), and construct validity via its negative relation to pressure for thinness ($r = -.69$) and its nonsignificant association with impression management ($r = .07$). Participants were asked to provide feedback on the clarity of each item. No participant indicated that any item was hard to read or confusing; thus, no items were modified. For the sample of 181 women, alpha was .90 for the BAOS scores.

Body function. Body function was assessed by the Body Surveillance subscale of the Objectified Body Consciousness Scale (OBC; McKinley & Hyde, 1996) in which its eight items are rated on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Although this subscale was intended to assess the degree to which a woman watches her body and thinks of her body in terms of how it appears to others more than how it feels or functions, six items are framed in the direction of body function (e.g., "I think more about how my body feels than how my body looks"). In the original scoring procedure, these six items are reverse scored and added to the two items that are framed in the direction of body surveillance (e.g., "During the day, I think about how I look many times") to determine women's levels of body surveillance (McKinley & Hyde, 1996). Instead, we did not reverse score the six items framed in the direction of body function, but reverse scored the two items framed in the direction of body surveillance; thus, all items were scored in the direction of body function and averaged to obtain a total score. Therefore, higher scores reflect greater emphasis of body function over surveillance of appearance. With samples of college women, scores on this subscale have been found to yield

evidence of internal consistency reliability ($\alpha = .89$), stability over a 2-week period ($r = .79$), and construct validity, as demonstrated by its relationship to public self-consciousness ($r = .73$; McKinley & Hyde, 1996). In the present study, alpha was .86 for the OBC scores.

Body appreciation. We used the 13-item Body Appreciation Scale (BAS; Avalos et al., 2005) to measure this construct. The BAS's items (e.g., "Despite its flaws, I accept my body for what it is") are rated on a 5-point scale ranging from 1 (*never*) to 5 (*always*) and averaged. Higher scores reflect greater body appreciation. With samples of college women, research has supported the BAS's unidimensional factor structure; its internal consistency reliability ($\alpha = .91-.94$); its stability over a 3-week period ($r = .90$); and its construct validity as it was related to positive appearance evaluation ($r = .68$), body preoccupation ($r = -.79$), body dissatisfaction ($r = -.73$), self-esteem ($r = .65$) and negligibly related to impression management ($r = .14$; Avalos et al., 2005). For the present study, alpha was .94 for the BAS scores.

Intuitive eating. This construct was measured by the Intuitive Eating Scale (IES; Tylka, 2006). The IES contains 21 items that assess the three components of intuitive eating identified in the literature: unconditional permission to eat (e.g., "If I am craving a certain food, I allow myself to have it"), eating for physical rather than emotional reasons (e.g., "I stop eating when I feel full [not overstuffed]"), and reliance on internal hunger and satiety cues (e.g., "I trust my body to tell me how much to eat"). Each item is rated on a 5-point scale that ranges from 1 (*strongly disagree*) to 5 (*strongly agree*). The IES can be divided into subscales that reflect the three aforementioned components; however, these subscales load on a higher order intuitive eating factor (Tylka, 2006). Given this finding, we chose to use only the IES total score instead of the individual subscales in the present study. With samples of college women, research has supported the IES's total score's internal consistency reliability ($\alpha = .85-.89$), stability over a 3-week period ($r = .90$), and construct validity as it was found to be negatively related to eating disorder symptomatology ($r = -.69$) and poor interoceptive awareness ($r = -.49$) and unrelated to impression management ($r = .12$; Tylka, 2006). For the present study, alpha was .89 for the IES scores.

Results

Preliminary Analyses

Of the 181 participants, 9 had a total of either one or two data points missing. We handled these missing data points by substituting participants' mean scale or subscale scores for the missing value. We then visually evaluated each measure's distribution for deviations from normality (i.e., skewness and kurtosis) via histograms. Following the recommendations of Tabachnick and Fidell (1996), it was determined that no substantial violation of normality existed that would jeopardize the assumptions of our analyses; thus, no measure was transformed. We then screened the data for

outliers. No outliers were identified; thus, all 181 cases were analyzed. Instrument means, standard deviations, and intercorrelations were calculated; these values are presented in Table 1.

Path Analysis

Path analysis procedures contained in the Mplus Version 4.1 program (Muthén & Muthén, 2006) were used to evaluate the acceptance model presented in Figure 1. Total measure scores served as the observed variables in the model. Because all measures were continuous, we used the maximum likelihood (ML) method of estimation with the covariance matrix as input. Adequacy of fit was determined by four indices recommended by Hu and Bentler (1999) and provided by Mplus: the comparative fit index (CFI), the Tucker-Lewis Index (TLI), the standardized root-mean-square residual (SRMR), and the root-mean-square error of approximation (RMSEA). Specifically, models with CFI and TLI values at or above .95 and SRMR and RMSEA values at or below .05 indicate an excellent fit to the data, whereas models with CFI and TLI values between .90 and .94 and SRMR and RMSEA values between .06 and .10 indicate an adequate fit to the data (Browne & Cudeck, 1993; Hu & Bentler, 1999). Values outside of these ranges reflect a poor fit of the model to the data.

Our acceptance model provided an excellent fit to the data (CFI = 1.00, TLI = .99, SRMR = .02, RMSEA = .04). All paths were significant, except for the path from general unconditional acceptance to body function ($\beta = .01$, *ns*); these findings supported Hypotheses 2, 3, and 4 and partially upheld Hypothesis 1. For parsimony, we deleted the nonsignificant path and reanalyzed the model. This trimmed model provided an excellent fit to the data (CFI = 1.00, TLI = 1.00, SRMR = .02, RMSEA = .00) and did not result in a reduction in model fit, $\chi^2_{\text{difference}}(1, N = 181) = 0.009$, *ns*. Hence, this model was interpreted. The path coefficients for this trimmed model are presented in Figure 2. Approximately 4.2% of the variance in perceived body acceptance by others was explained by general unconditional acceptance, 9.4% of the variance in body function was explained by perceived body acceptance by others, 54.5% of the variance in body appreciation was explained by perceived body acceptance by others and body function, and 34.6% of the variance in intuitive eating was explained by body appreciation and body function.

Examination of Indirect Effects and Mediation

Next, we tested whether body appreciation and body function fully mediated the body acceptance by others-intuitive eating

Table 1
Means, Standard Deviations, and Correlations Among the Measures of Study 1

Measure	<i>M</i>	<i>SD</i>	Response range	1	2	3	4	5
1. Barrett-Lennard Relationship Inventory	4.59	0.53	1-6	—				
2. Body Acceptance by Others Scale	3.62	0.78	1-5	.21**	—			
3. OBC: Body Surveillance (body function)	3.25	1.17	1-7	.07	.31***	—		
4. Body Appreciation Scale	3.48	0.79	1-5	.15*	.63***	.55***	—	
5. Intuitive Eating Scale	3.31	0.62	1-5	.07	.45***	.43***	.58***	—

Note. $N = 181$. Given the present study's focus on body function over body surveillance, we scored the Objectified Body Consciousness Scale (OBC): Body Surveillance subscale in the direction of body function, in which higher scores indicate greater attention to body function.

* $p < .05$. ** $p < .01$. *** $p < .001$.

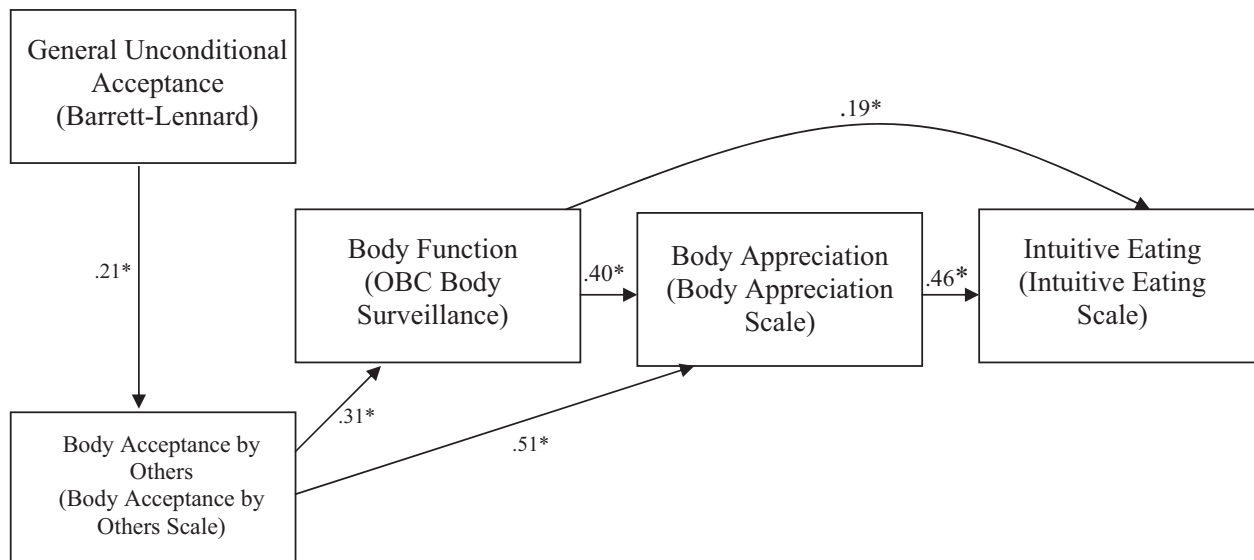


Figure 2. Study 1 ($N = 181$) path coefficients for the trimmed model analyzed via path analysis, using the total measure score for each observed variable. Barrett-Lennard = Barrett-Lennard Relationship Inventory; OBC = Objectified Body Consciousness Scale. $*p < .05$.

relationship. To do this, we first followed Shrout and Bolger's (2002) bootstrap procedures, which offer an empirical method of determining the significance of indirect effects. Specifically, we created 10,000 bootstrap samples from the data set ($N = 181$) by random sampling with replacement. Within the structural model, we specified Mplus to estimate indirect effects for the (a) body acceptance by others \rightarrow body appreciation \rightarrow intuitive eating paths and (b) body acceptance by others \rightarrow body function \rightarrow intuitive eating paths. This structural model was tested with these bootstrap samples, yielding 10,000 estimates of each path coefficient. Output from these estimates was then used to calculate the indirect effects. The bootstrap method multiplies 10,000 pairs of path coefficients from (a) body acceptance by others to each mediator and (b) each mediator to intuitive eating. Bias-corrected confidence intervals (CIs) around point estimates of the indirect effects are generated from these 10,000 values. Indirect effects are deemed statistically significant at the .05 level if the 95% CI for the estimate of indirect effects does not include zero.

Results indicated that neither of the 95% CIs for the indirect effects included zero, indicating that all of the indirect paths were statistically significant. When body appreciation was examined as a mediator between body acceptance by others and intuitive eating, the standardized indirect effect was $\beta = .235$ (i.e., $.51 \times .46$), the mean indirect (unstandardized) effect was 0.193, the standard error of the mean indirect effect was 0.040, and the 95% CI for the mean indirect effect was .119 (lower limit) and .277 (upper limit). When body function was examined as a mediator between body acceptance by others and intuitive eating, the standardized indirect effect was $\beta = .059$ (i.e., $.31 \times .19$), the mean indirect (unstandardized) effect was 0.048, the standard error of the mean indirect effect was 0.024, and the 95% CI for the mean indirect effect was .012 (lower limit) and .107 (upper limit).

To further examine whether body function and body appreciation fully mediated the body acceptance by others-intuitive eating

relationship, we added a direct path from body acceptance by others to intuitive eating in the structural model and reanalyzed it using Mplus. When estimated, this path was not significant, $\beta = .13$, $t(180) = 1.64$, *ns*, and this revised structural model with the added path did not provide an overall better fit to the data than the original structural model without the added path, $\chi^2_{\text{difference}}(1, N = 181) = 2.88$, *ns*. Collectively, these results indicated that body function and body appreciation fully mediated the relationship between body acceptance by others and intuitive eating, which supports Hypothesis 5.

Study 2

Study 1 provided initial support for our acceptance model. Yet, it is unknown whether the findings of Study 1 were sample specific or whether they generalize to a different sample of women. Indeed, researchers (e.g., Mazzeo & Espelage, 2002) have argued that models need to be cross-validated to gain confidence that findings are not sample specific. Therefore, Study 2 was undertaken to determine whether the findings of Study 1 can be extended to another sample of college women. Furthermore, for Study 2, we sought to recruit a larger sample to use latent variable structural equation modeling (SEM) to evaluate the acceptance model and its pathways. Latent variable SEM provides a more stringent evaluation of a model than path analysis in that it uses multiple indicators to estimate a latent factor; this feature controls for measurement error within the model (Kelloway, 1998).

Method

Participants and Procedure

Seven women who did not answer 90% or more of any given measure were not included in the data set. The final data set contained responses from 416 women from general psychology classes at a large Midwestern

university. This sample size was large enough to perform the planned analyses (i.e., latent variable SEM), as the number of participants needed was 360 (on the basis of a participants-to-parameter ratio of 10:1; Bentler, 1990). Participants ranged in age from 17 to 50 years ($M = 19.92$, $SD = 4.60$) and identified as European American (77.6%), African American (9.1%), multiracial (5.7%), Asian American (5.0%), or Latina (2.4%). Participants classified themselves as first-year students (67.1%), sophomores (18.8%), juniors (5.5%), seniors (8.2%), or postbaccalaureate students (0.5%). Women indicated that their socioeconomic standing was middle class (55.8%), upper middle class (33.6%), working class (9.7%), or upper class (1.4%).

Participants read a description of the study and enrolled via the psychology department Web site. The study was described as an investigation of their relationships with others, body attitudes, and eating habits. After participants were guaranteed anonymity and signed the informed consent form, they completed the measures, which were counterbalanced, in a classroom used as a research laboratory. They received course credit for their involvement.

Measures

The measures used in Study 1 were also used in Study 2. Internal consistency reliability (α) estimates were .85 for BLRI scores, .91 for BAOS scores, .87 for body function scores (OBC: Body Surveillance), .93 for BAS scores, and .87 for IES scores.

Creation of Measured and Observed Variables

To construct three measured indicators (parcels) for each latent variable (i.e., general unconditional acceptance, body acceptance by others, body function, body appreciation, and intuitive eating), we followed the recommendation of Russell, Kahn, Spoth, and Altmaier (1998). First, for each measure, we conducted an exploratory factor analysis using the ML method of extraction and specified a single factor to be extracted. Second, we rank ordered items on the basis of the magnitude of the factor loadings. Third, to equalize the average loadings of each parcel on its respective latent factor, we successively assigned items (from the highest to the lowest factor loading) to each of the three parcels. Last, for each parcel, we created

a total score by averaging its items. Parcels were then used to estimate their respective latent variable within the SEM analyses. For measures containing subscales, we used the procedure discussed above rather than using the individual subscales to estimate the respective latent variable. Subscales produced lower factor loadings than parcels; thus, using them would negatively impact the measurement and structural model.

Results

Preliminary Analyses

Eleven participants had either one or two data points missing across the entire set of questionnaires; we handled these missing data points by substituting participants' mean scale or subscale scores for the missing value. Next, we evaluated the skewness and kurtosis of each parcel visually to determine the extent of their deviation from normality. No substantial violation of normality was uncovered for any parcel (Tabachnick & Fidell, 1996); therefore, data transformations were not deemed necessary. No outliers were identified within the data set. Table 2 presents the means, standard deviations, and intercorrelations for the 15 observed measure parcels.

Latent Variable SEM

For the analyses presented below, we used Mplus Version 4.1 with ML estimation and the covariance matrix as input. Prior to evaluating the structural model presented in Figure 1, we tested the measurement model for an acceptable fit to the data through a confirmatory factor analysis. Parcels served as indicators for their respective latent variable. Results indicated that the measurement model provided an adequate (RMSEA = .07) to excellent (CFI = .97, TLI = .96, SRMR = .05) fit to the data. All parcels loaded significantly ($p < .001$) on their respective latent factor, indicating that all latent factors were adequately operationalized. We therefore used this measurement model when testing the structural

Table 2
Means, Standard Deviations, and Correlations Among the 15 Observed Variables (Parcels) of Study 2

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. UnAcc1	4.62	0.69	—														
2. UnAcc2	4.55	0.66	.67	—													
3. UnAcc3	4.47	0.64	.65	.69	—												
4. BAccO1	4.00	0.75	.19	.24	.21	—											
5. BAccO2	3.89	0.82	.21	.26	.23	.93	—										
6. BAccO3	3.16	0.79	.13	.15	.15	.73	.74	—									
7. BoFun1	3.12	1.20	.03	.05	.01	.13	.13	.22	—								
8. BoFun2	3.13	1.32	.08	.09	.06	.26	.24	.32	.71	—							
9. BoFun3	3.36	1.24	.06	.04	.02	.18	.16	.23	.70	.70	—						
10. BoApp1	3.38	0.80	.16	.15	.11	.47	.47	.51	.50	.63	.53	—					
11. BoApp2	3.44	0.78	.19	.17	.13	.50	.50	.52	.31	.50	.36	.82	—				
12. BoApp3	3.50	0.77	.15	.16	.13	.56	.54	.56	.32	.50	.41	.77	.82	—			
13. IntEat1	3.18	0.66	.15	.16	.11	.29	.29	.30	.34	.38	.37	.56	.45	.39	—		
14. IntEat2	3.32	0.61	.15	.19	.16	.35	.35	.36	.32	.42	.40	.59	.52	.48	.77	—	
15. IntEat3	3.19	0.59	.09	.11	.09	.30	.31	.34	.34	.37	.35	.56	.47	.40	.74	.80	—

Note. $N = 416$. Absolute correlation values greater than or equal to .10 are significant at $p < .05$; those greater than or equal to .13 are significant at $p < .01$; and those greater than or equal to .17 are significant at $p < .001$. UnAcc 1, 2, 3 = three general unconditional acceptance item parcels from the Barrett-Lennard Relationship Inventory; BAccO 1, 2, 3 = three body acceptance by others item parcels from the Body Acceptance by Others Scale; BoFun 1, 2, 3 = three body function item parcels from the Objectified Body Consciousness Scale: Body Surveillance subscale (scored in the direction of body function rather than body surveillance); BoApp 1, 2, 3 = three body appreciation item parcels from the Body Appreciation Scale; IntEat 1, 2, 3 = three intuitive eating item parcels from the Intuitive Eating Scale.

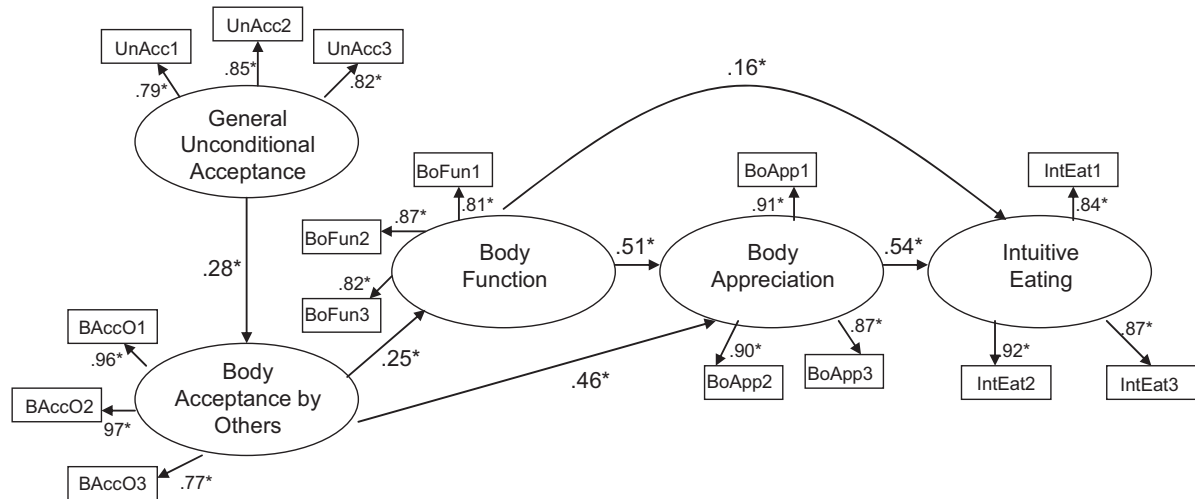


Figure 3. Study 2 ($N = 416$) parcel loadings for the measurement model and path coefficients for the trimmed structural model analyzed via latent variable structural equation modeling. Standard errors were .00, .06, and .06 for the general unconditional acceptance item parcels (UnAcc); .00, .03, and .04 for the body acceptance by others item parcels (BAccO); .00, .06, and .06 for the body function item parcels (BoFun); .00, .04, and .04 for the body appreciation item parcels (BoApp); and .00, .04, and .04 for the intuitive eating item parcels (IntEat). * $p < .05$.

model. The parcel loadings and standard errors are presented in Figure 3, and relationships between the latent variables are included in Table 3.

We then tested the hypothesized structural model presented in Figure 1. This model provided an adequate (RMSEA = .07) to excellent (CFI = .97, TLI = .96, SRMR = .05) fit to the data. Path coefficients are presented in Figure 3. Similar to the findings of Study 1, all paths were significant except for the path from general unconditional acceptance to body function,¹ which supported Hypotheses 2, 3, and 4 and partially supported Hypothesis 1. We deleted the nonsignificant path to obtain a more parsimonious model. When reanalyzed, this trimmed model also provided an adequate (RMSEA = .07) to excellent (CFI = .97, TLI = .96, SRMR = .05) fit to the data. The version of the structural model containing the path from general unconditional acceptance to body function did not provide a better fit to the data than the trimmed model, $\chi^2_{\text{difference}}(1, N = 416) = 0.054, ns$. Thus, this trimmed model was interpreted. Approximately 8.1% of the variance in perceived body acceptance by others was explained by general unconditional acceptance, 6.1% of the variance in body function

was explained by perceived body acceptance by others, 59.6% of the variance in body appreciation was explained by perceived body acceptance by others and body function, and 42.5% of the variance in intuitive eating was explained by body appreciation and body function.

Examination of Indirect Effects and Mediation

Given that the relationships between (a) body acceptance by others, body appreciation, and intuitive eating, and (b) body acceptance by others, body function, and intuitive eating were all significant, we proceeded to examine whether body appreciation and body function fully mediated the body acceptance by others–intuitive eating relationship using Shrout and Bolger’s procedure, discussed in detail in Study 1. We specified Mplus to generate 10,000 bootstrap samples from the original data set ($N = 416$). The structural model then was estimated 10,000 times with these bootstrap samples, yielding 10,000 estimations of each path coefficient. Ten thousand pairs of path coefficients from body acceptance by others to a mediator (either body function or body appreciation) were multiplied with the path from the mediator to intuitive eating, and bias-corrected CIs were generated from these 10,000 values.

Table 3
Study 2 Correlations Among the Latent Variables on the Basis of the Measurement Model

Variable	1	2	3	4	5
1. General unconditional acceptance	—				
2. Body acceptance by others	.28***	—			
3. Emphasis on body function	.08	.25***	—		
4. Body appreciation	.20***	.59***	.63***	—	
5. Intuitive eating	.19**	.38***	.50***	.64***	—

Note. $N = 416$.
** $p < .01$. *** $p < .001$.

¹ We also analyzed this model using the BLRI and IES subscales (rather than item parcels) to estimate the general unconditional acceptance and intuitive eating latent variables, respectively. The significance of the path coefficients was similar across both methods (i.e., all paths were significant except the path from general unconditional acceptance to body function).

Neither of the 95% CIs for the indirect effects included zero; thus, the indirect paths were statistically significant.² When body appreciation was examined as a mediator between body acceptance by others and intuitive eating, the standardized indirect effect was $\beta = .250$ (i.e., $.46 \times .54$), the mean indirect (unstandardized) effect was 0.192, the standard error of the mean indirect effect was 0.030, and the 95% CI for the mean indirect effect was .135 (lower limit) and .255 (upper limit). When body function was examined as a mediator between body acceptance by others and intuitive eating, the standardized indirect effect was $\beta = .040$ (i.e., $.25 \times .16$), the mean indirect (unstandardized) effect was 0.031, the standard error of the mean indirect effect was 0.016, and the 95% CI for the mean indirect effect was .005 (lower limit) and .067 (upper limit).

Similar to Study 1, we added a direct path from body acceptance by others to intuitive eating in our structural model to further determine whether body function and body appreciation fully mediated the body acceptance by others–intuitive eating relationship. When estimated, this path was not significant, $\beta = .05$, $t(415) = 0.89$, *ns*, and the revised structural model with the added path did not provide an overall better fit to the data than the original structural model without the added path, $\chi^2_{\text{difference}}(1, N = 416) = 0.76$, *ns*.³ Body function and body appreciation therefore fully mediated the relationship between body acceptance by others and intuitive eating, upholding Hypothesis 5.

Post Hoc Analyses

Given that our sample included 38 African American women, we analyzed the patterns of bivariate correlations (between the measure total scores) for these women and compared those patterns with the data obtained from European American women ($n = 323$). Table 4 includes the measure intercorrelations for both samples. We conducted a series of Fisher's z tests to determine whether the correlations were similar or different for African American and European American women. One pair of correlations between the samples were significantly different; it appears that the correlation between body function and intuitive eating was stronger for European American women (Fisher's $z = 2.75$, $p < .05$).

Table 4
Intercorrelations Among the Measures of Study 2 for the Sample of African American Participants (n = 38) and the Sample of European American Participants (n = 323)

Measure	1	2	3	4	5
1. Barrett-Lennard Relationship Inventory	—	.29	.34	.46	.38
2. Body Acceptance by Others Scale	.28	—	.18	.52	.19
3. OBC: Body Surveillance (body function)	.03	.24	—	.61	.05 ^a
4. Body Appreciation Scale	.20	.59	.55	—	.50
5. Intuitive Eating Scale	.17	.38	.49 ^a	.57	—

Note. Measure intercorrelations for the African American participants are presented above the diagonal, whereas measure intercorrelations for the European American participants are located below the diagonal. We scored the Objectified Body Consciousness Scale (OBC): Body Surveillance subscale in the direction of body function, in which higher scores indicate greater attention to body function.

^a Pair of correlations that were significantly different (i.e., Fisher's $z > 1.96$, $p < .05$) for African American and European American women.

.01). These analyses need to be interpreted with caution because of the relatively small sample of African American women. Other pairs of correlations (e.g., the relations of general unconditional acceptance to body function, body appreciation, and intuitive eating) may be significantly different with a larger sample of African American women.

General Discussion

On the basis of extant literature highlighting environmental contributions to body image and eating behaviors (Fredrickson & Roberts, 1997; Tribole & Resch, 1995), we developed an acceptance model of body appreciation and intuitive eating. On evaluation, this model adequately fit data from two samples of college women, and we garnered support for several of its propositions. First, women's perceptions that they were unconditionally accepted when growing up were associated with their perceptions that others are accepting of their bodies, upholding the previous theory that perceptions of general unconditional acceptance influence perceptions of acceptance in more specific domains (e.g., the body; Rogers, 1961) and research findings that perceived social support is negatively related to perceived pressure to lose weight (Tylka & Subich, 2004). Unexpectedly, however, perceptions of general unconditional acceptance did not contribute to women's emphasis on how their body functions and feels more so than their appearance. This finding is inconsistent with the assertion that a lack of general unconditional acceptance may encourage women to turn to society for acceptance and validation, in which they habitually monitor their body appearance to try to gain acceptance by appearing attractive for others (Fredrickson & Roberts, 1997; Rogers, 1961).

Instead of general unconditional acceptance, it may be that a more specific type of acceptance (i.e., body acceptance from others) is associated with women's emphasis on the functionality of their bodies (rather than their appearance). Our results supported this assertion, upholding scholars' arguments that a lack of body acceptance by others may encourage women to spend more time attending to their outer appearance than the functioning of their bodies (Fredrickson & Roberts, 1997) and research that has found that pressures to lose weight (in lieu of body acceptance) by others contribute to women focusing on their appearance rather than how their bodies function and feel (Birch et al., 2003; Carper et al., 2000; Tylka & Hill, 2004). Also as expected, perceptions of body acceptance by others predicted women's appreciation of their own bodies (Avalos et al., 2005; Tylka, 2006). This finding, together with research revealing a relationship between perceived pressure to be thin and body image disturbance (Stice, Nemeroff, & Shaw, 1996; Tylka & Hill, 2004; Tylka & Subich, 2004), suggests that significant others contribute to women's body attitudes and that the better way to encourage women's positive attitudes and respect toward their bodies is via communication of acceptance of their bodies rather than via hints, suggestions, and/or criticisms that they need to lose weight.

² These indirect paths were also statistically significant when we analyzed the model using BLRI and IES subscales in lieu of item parcels.

³ The direct path from body acceptance by others to intuitive eating was also nonsignificant when we analyzed the model using BLRI and IES subscales in lieu of item parcels.

In agreement with scholars' propositions (e.g., Avalos et al., 2005; Moradi et al., 2005; Tylka, 2006), our acceptance model further revealed that when women emphasize the functionality of their bodies more so than their appearance, they are more likely to hold positive feelings toward their bodies and eat according to their bodies' internal hunger and satiety signals. This finding stresses the importance of encouraging women to adopt a functional orientation toward their bodies (e.g., by focusing on how their bodies feel and what they can do, by wearing comfortable clothing) in lieu of habitually monitoring their appearance to appear attractive for others.

Our acceptance model also revealed that body appreciation predicted intuitive eating, supporting assertions that favorable body attitudes are associated with greater awareness of bodily (i.e., internal hunger and satiety) signals and a greater tendency to honor these signals (Avalos et al., 2005; Tylka, 2006). Although certain societal messages suggest that some degree of body dissatisfaction is healthy in that it could help individuals strive to take care of their bodies, our results provide an argument for the opposite: An appreciation of the body is more likely to be associated with intuitive eating. Because intuitive eating emphasizes responding to internal hunger and satiety cues, individuals who eat intuitively on a regular basis are more likely to be at a weight that is appropriate for their body type and have higher levels of psychological well-being (Tylka, 2006).

Last, we found that the influence of body acceptance by others on intuitive eating was fully explained by a positive body orientation (i.e., both body function and body appreciation). These findings highlight body function and body appreciation as potential key mechanisms in translating body acceptance by others into intuitive eating behaviors. It becomes imperative, then, that all individuals, both psychologists and laypersons (a) challenge Western culture's sexual objectification of women, its critical evaluation of their appearance, and its promulgation of the thin-ideal stereotype; (b) promote acceptance of a diversity of body sizes without encouraging women to change their body shape or weight; and (c) encourage women to emphasize the functionality of their bodies rather than their appearance and to appreciate and respect their bodies.

Our findings can be used to refine extant theory on body image and eating behaviors, which largely has been pathology focused (Avalos et al., 2005; Tylka, 2006), to include implications of positive environmental contributions to women's adaptive body orientation. Our results are consistent with typical conceptualizations of environmental influences (Tylka & Subich, 2004) as the backdrop against which individual development occurs. Positive body acceptance by others, then, may provide the context for a woman's adoption of the belief that she does not need to lose weight, tone up, and so forth to be worthwhile and that the functionality and appreciation of her body holds greater importance. These intrapersonal variables may be the more direct contributors to her tendency to eat intuitively.

Our acceptance model explained 34.5% and 42.5% of the variance in intuitive eating for the first and second sample, respectively. Although these are sizable percentages for structural models, variables within some models of disordered eating have accounted for a greater percentage of criterion variance, such as 50% (Moradi et al., 2005) and 62% (Tylka & Subich, 2004). Therefore, a direction for future research would be to integrate

other interpersonal and intrapersonal variables within the acceptance model framework to determine whether they account for additional variance in intuitive eating. For instance, self-esteem (or unconditional self-regard) has been theorized to be predicted by general unconditional acceptance (Rogers, 1961) and body acceptance by others (Johnson, 2001), and self-esteem has been shown to be related to a positive body orientation and intuitive eating among college women (Avalos et al., 2005; Tylka, 2006). It is also likely that friend and family social support (which may be predicted by general unconditional acceptance and body acceptance) would predict self-esteem and intuitive eating, as poor social support has predicted unique variance in women's tendency to engage in maladaptive eating (Tylka & Subich, 2004). Furthermore, proactive coping (which may be predicted by general unconditional acceptance) may predict body appreciation, self-esteem, and intuitive eating, as these associations have been documented within the literature (Avalos et al., 2005; Tylka, 2006). Self-esteem, social support, and proactive coping, then, could be integrated and empirically examined within our model.

Although our correlational data do not rule out the possibility that other model configurations might fit our data equally well, it is encouraging that the variable relations we considered most logical given prior theory and research were in fact upheld. Another direction for future research would be to determine via longitudinal designs whether the present model paths accurately represent the causal relations between the model variables. The identification of causal or directional links would greatly aid in determining the best and most efficient approach to take within counseling interventions, to lead to positive change in eating behaviors, and within prevention programs, to assist in the fostering and maintenance of intuitive eating.

The present study's findings provide a foundation for how counselors can direct efforts to promote body appreciation and intuitive eating among their female clientele. First, counselors need to address with their clients that a positive body orientation that focuses on body appreciation and body functionality rather than appearance is associated with intuitive eating and that intuitive eating is connected with other physical and psychological benefits (Tylka, 2006; Tylka & Wilcox, in press). Second, to foster a positive body orientation in women, counselors need to work toward reducing *weightism*, which signifies the lack of body acceptance by others, and appearance-related feedback in their clients' immediate environments and in Western culture at large. Given our findings, counselors may wish to discuss with their clients' families the importance of communicating body acceptance and to work with the families on how to replace messages that decrease women's likelihood of perceiving that their bodies are accepted by others with messages that are likely to increase this perception. Given that body appreciation (Avalos et al., 2005) and intuitive eating (Tylka, 2006) are negatively associated with disordered eating and positively associated with psychological well-being, their promotion may, in turn, result in a reduction of eating disorder symptomatology and an increase in well-being. Future research should investigate this assertion using longitudinal designs, and if supported, these findings would provide additional evidence for the benefits of body appreciation and intuitive eating and provide an even greater impetus for clinicians to encourage these characteristics in their clientele.

Despite the contributions the present study makes to the literature, it is important to address its limitations. For each study, data were collected at a single point in time and, as a result, no causal claims can be made about the sequence of model variables. Investigators must be able to indicate with certainty that the existence of one variable preceded the onset of a second variable via longitudinal designs before causal direction between the variables can be argued (Bollen, 1989). There could be alternative models that include different causal assumptions that could provide equally valid explanations of the associations between variables. Even though similar findings of our acceptance model were demonstrated with two samples of college women, these results do not imply that the model has been proven (Bollen, 1989). It is more appropriate to state that our model was not rejected.

Our exclusive use of self-reports of the studied model variables is limiting, as it relies on participants' accurate reporting of their current attitudes, behaviors, and level of functioning. Perceptions and social desirability may have influenced women's responses on the measures that were used to estimate the model variables. Because general unconditional acceptance was assessed retrospectively, participants' recollections may have been influenced by recall bias. Perceptions, not actual levels, of general unconditional acceptance and body acceptance by others were assessed. We wished to assess women's perceptions of acceptance, as the perception of what occurred and how they interpret events may shape their destiny more so than what actually happened (Kelly, 1955). Nevertheless, perceptions can be influenced by affect and personality variables and therefore may or may not be an accurate portrayal of reality (Lakey, McCabe, Fisicaro, & Drew, 1996).

We only asked women to report the level of perceived general unconditional acceptance from the most influential person in their life when they were growing up. This variable, then, is limited in that it is unable to capture the overall level of acceptance (perceived and/or actual) in participants' total environment (both childhood and current). For some participants, perhaps this most influential person did not give them the acceptance that they needed, but others in their environment were accepting of them. Perceiving general unconditional acceptance from people other than their most influential person could have impacted the model variables differently. Some participants may have received unconditional support from most or all others within their environment, whereas other participants may have received unconditional acceptance from their most influential person but not others they interacted with. Another possibility is that women's current level of general unconditional acceptance may be more influential in the model than their perceived level of acceptance within their childhood. Given the above, we encourage researchers to conceptualize general unconditional acceptance in different ways and to explore how types of acceptance impact the model.

Another limitation is our use of one measure, divided into parcels, to estimate each latent variable within Study 2. Instead, it is more favorable to have multiple measures of the same construct to form a latent variable. The fact that only one psychometrically sound measure exists for most of our constructs (i.e., the IES for intuitive eating, the BAOS for body acceptance by others, the BAS for body appreciation, the OBC: Body Surveillance reverse scored for body function) precluded this possibility.

We did not control for women's body mass index within our model. Women who have higher body mass may have received

more messages from others and the media that they need to lose weight, which could have negatively influenced their perceptions of body acceptance by others. Because intuitive eating has been associated with lower body mass among college women (Tylka, 2006), it seems appropriate that future explorations of intuitive eating models account for the influence of participants' body mass.

Last, most of the women in this study were young adult, Caucasian, middle to upper middle class first-year psychology students. It is important to determine whether this study's findings apply to other samples of women (e.g., noncollegiate women, women of color) and men, as it is unknown whether the model findings can be extended to fit others' experiences and whether intuitive eating is adaptive for more diverse populations. Our examination of the bivariate correlations between our European American and African American participants provides preliminary evidence for the generalizability of some, but not all, variable relationships.

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