



Self-concept clarity, thin-ideal internalization, and appearance-related social comparison as predictors of body dissatisfaction



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ABSTRACT

This study examined the associations among self-concept clarity, thin-ideal internalization, appearance-related social comparison tendencies, and body dissatisfaction. Female university students ($N=278$) completed self-report measures of these constructs. Structural equation modeling revealed several key findings: (a) thin-ideal internalization mediated the link between appearance-related social comparison tendencies and body dissatisfaction; (b) self-concept clarity was negatively associated with both thin-ideal internalization and appearance-related social comparison tendencies; and (c) thin-ideal internalization mediated the link between self-concept clarity and body dissatisfaction. These findings suggest that low self-concept clarity might contribute to body image problems because it increases women's vulnerability to thin-ideal internalization and appearance-related social comparison tendencies.

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Introduction

Body image concerns are highly prevalent among university-aged women (Berg, Frazier, & Sherr, 2009; Mintz & Betz, 1988; Neighbors & Sobal, 2007). Negative body image has been associated with depression, stress, and low self-esteem (Johnson & Wardle, 2005) and can be a maintenance factor for disordered eating (Stice, 2002). Given the range of problems associated with negative body image, researchers have been motivated to identify the factors that contribute to women feeling dissatisfied with their bodies. One influential model—the Tripartite Influence Model—describes how social influence from media, parents, and peers can predict body image and eating disturbances. In particular, this model suggests that these social influences are mediated by both internalization of the thin ideal and a tendency towards appearance-related social comparisons (e.g., Keery, van den Berg, & Thompson, 2004; Shroff & Thompson, 2006). The present study aims to extend this model by examining an important intrapersonal variable—the extent to which people have a clear and stable sense of their own identity—that can predict individual differences in thin-ideal internalization and appearance-related social comparison tendencies.

Past research illustrates that women's body image can be negatively affected by their internalization of the thin ideal (Cafri,

Yamamiya, Brannick, & Thompson, 2005). The ultra-thin idealized bodies that are frequently presented in the media are extremely difficult, if not impossible, for most women to achieve. Consequently, women who aspire to (i.e., who have internalized) the thin ideal and who fail to achieve this ideal will in turn experience negative feelings about their bodies. Numerous studies have demonstrated an association between women's internalization of the thin ideal and their body dissatisfaction, including correlational (e.g., Vartanian, 2009), prospective (e.g., Stice, 2001), and experimental studies (e.g., Nouri, Hill, & Orelle-Valente, 2011). The robust nature of this association is supported by recent meta-analyses (e.g., Cafri et al., 2005; Stice, 2002).

Another factor that can contribute to negative body image among women is the tendency to make appearance-related social comparisons. Women tend to evaluate their appearance against women who they perceive to be superior to themselves (upward comparisons; Leahey, Crowther, & Mickelson, 2007). It has been suggested that women might compare themselves to thinner women for inspiration (Mills, Polivy, Herman, & Tiggemann, 2002). However, these upward comparisons generally induce greater body dissatisfaction (Bailey & Ricciardelli, 2010; Bessenoff, 2006; Leahey et al., 2007). Indeed, meta-analyses have found that when women compare themselves to thinner targets, they experience increased dissatisfaction with their bodies (Groesz, Levine, & Murnen, 2002; Myers & Crowther, 2009). There is also some evidence that exposure to less attractive others (i.e., downward comparisons) might induce more positive self-evaluations (e.g., Leahey et al., 2007), but other research has found that a general tendency to make

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appearance-based comparisons (both upward and downward) is significantly associated with eating disturbance (O'Brien et al., 2009). Thus, a chronic tendency to make appearance-based social comparisons may be associated with negative outcomes regardless of the direction of those comparisons.

Although there is clear evidence that thin-ideal internalization and appearance-related social comparison tendencies can adversely impact body image, there is relatively little research examining the connection between those two risk factors, and there is ambiguity in the joint role that these factors share in predicting body dissatisfaction. For example, research on the Tripartite Influence Model suggests that thin-ideal internalization mediates the association between appearance-based social comparisons and body dissatisfaction (e.g., Halliwell & Harvey, 2006; Keery et al., 2004; Rodgers, Chabrol, & Paxton, 2011; Shroff & Thompson, 2006). Other research, however, has examined social comparison tendencies as a mediator of the link between thin-ideal internalization and body dissatisfaction and found mixed results. One study found that the extent to which preadolescent girls compared their physical appearance to others (partially) mediated the relationship between their thin-ideal internalization and body dissatisfaction (Blowers, Loxton, Grady-Flessler, Occhipinti, & Dawe, 2003). Another study testing university-aged women, however, failed to produce that same effect (Fitzsimmons-Craft, Harney, Koehler, Danzi, Riddell, & Bardone-Cone, 2012), which the authors suggest may have been due to the fact that upward and downward comparisons were not differentiated in their study. Thus, the joint role of appearance-based social comparison tendencies and thin-ideal internalization in predicting body dissatisfaction needs to be clarified.

In order to develop a better understanding of the factors that contribute to negative body image, it is also important to identify the factors that predict thin-ideal internalization and appearance-related social comparison tendencies. In addition to the social factors that form part of the Tripartite Influence Model (media, parents, and peers), it can be important to examine personality characteristics and other individual-difference variables. One individual-difference variable that might hold promise in this regard is self-concept clarity. Self-concept clarity is defined as “the extent to which the contents of an individual’s self-concept (e.g., perceived personal attributes) are clearly and confidently defined, internally consistent, and temporally stable” (Campbell, Trapnell, Heine, Katz, Lavallee, & Lehman, 1996, p. 141). Because individuals who are low in self-concept clarity lack a clear sense of their own identity, they might seek out and become vulnerable to the influence of external sources that can help define the self; in contrast, individuals high in self-concept clarity should be less influenced by external guides because they have a strong sense of their own personal identity. For women, societal standards of attractiveness can be a highly accessible external source used to define the self. Consequently, women low in self-concept clarity may be more likely to internalize the thin ideal and may be more likely to engage in appearance-related social comparison.

An early theoretical perspective suggested that identity disturbance might lead to internalization of societal standards of attractiveness (Stice, 1994). To date, however, only two studies have provided empirical support for this suggestion. Cahill and Mussap (2007) reported that low self-concept clarity was associated with a greater degree of thin-ideal internalization. Vartanian (2009) replicated that finding and further demonstrated that thin-ideal internalization mediated the relation between self-concept clarity and body image concerns. Thus, there is some preliminary evidence implicating self-concept clarity as a predictor of internalization of the thin ideal and body image concerns.

No study in the body image literature has examined the connection between self-concept clarity and appearance-related social comparison tendencies, although a few studies from the social

psychology literature have suggested that these two constructs are related. Festinger’s (1954) social comparison theory proposes that individuals uncertain of their sense of self will be highly motivated to compare themselves to others so that they can better understand how and where they fit into society. Supporting that hypothesis, studies have found that individuals low in self-concept clarity are more inclined to engage in social comparisons compared to those high in self-concept clarity (Butzer & Kuiper, 2006; Stapel & Tesser, 2001¹). One might similarly expect that low self-concept clarity would predict social comparisons in the body image domain. Furthermore, just as internalization has been found to mediate the association between self-concept clarity and body image concerns, one might also expect that appearance-related comparison tendencies would mediate the association between self-concept clarity and body dissatisfaction.

The Present Study

The aim of this study was to investigate the associations among self-concept clarity, thin-ideal internalization, and upward and downward appearance comparison tendencies, and to determine how these factors may in turn predict body dissatisfaction among university-aged women. We tested two different models, one in which thin-ideal internalization served as the mediator between appearance-based social comparison tendencies and body dissatisfaction, and a second in which appearance-based social comparison tendencies served as the mediator between thin-ideal internalization and body dissatisfaction, to clarify the nature of these associations due to mixed findings in the literature. We also tested the hypothesis that self-concept clarity would be related to thin-ideal internalization and appearance-related social comparison tendencies, which in turn would mediate the association between self-concept clarity and body dissatisfaction. The findings of the present study may facilitate earlier identification of women who are vulnerable to body image concerns.

Method

Participants

Participants were 278 undergraduate female students from a first-year psychology course at a large public university. One participant was excluded because she failed to complete the majority of the questionnaires. Participants’ mean age was 19.7 years (range = 17–55²), and their mean body mass index (BMI; based on self-reported height and weight) was 21.4 (range = 14–38). Of those who reported their ethnicity, 115 (41.7%) were White, 119 (43.1%) were Asian, 1 (0.4%) was Aboriginal/Torres Strait Islander, and 41 (14.9%) identified as “other.” All participants were given course credit for their participation. This study was approved by the university’s ethics committee.

Measures and Procedure

Participants signed up for a study that was described as an investigation of students’ adjustment to university life. After providing written consent, each participant completed a series of questionnaires on a lab computer. These measures included:

¹ The Levelt Committee found no evidence of scientific fraud in this paper.

² Twelve participants were older than 24 years of age, and therefore outside of the range of the typical university student. Restricting the sample to those individuals who were 24 years or younger did not change the results. Thus, we retained the full sample in our analyses.

Self-concept clarity. The Self-Concept Clarity Scale (SCCS; Campbell et al., 1996) assesses the extent to which individuals have a well-defined, coherent, and stable sense of self. Sample items include “I seldom experience conflict between the different aspects of my personality” and “In general, I have a clear sense of who I am and what I am.” The scale consisted of 12 items, each of which was rated on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*). Items were summed, with higher scores indicating a greater degree of self-concept clarity. In previous studies with university samples, this measure has demonstrated evidence of internal consistency (e.g., Vartanian, 2009) and criterion validity (Campbell et al., 1996). For the current study, Cronbach’s alpha was .87.

Internalization of the thin ideal. The Sociocultural Attitudes Toward Appearance Questionnaire-3 (SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004) is a 30-item scale that assesses the degree to which people are aware of and have endorsed the thin-body ideal. For the present study, only the nine items of the internalization-general subscale were included. Each item was rated on a 5-point scale (1 = *Definitely disagree*, 5 = *Definitely agree*). Items were summed, with higher scores indicating a greater degree of thin-ideal internalization. This subscale has demonstrated evidence of construct validity (Thompson et al., 2004) and internal consistency (e.g., Llorente, Warren, Perez de Eulate, & Gleaves, 2013; Swami, 2009) in previous studies testing university women. Cronbach’s alpha was .92 for the present study.

Upward and downward appearance comparison. The Upward and Downward Appearance Comparison Scale (UDACS; O’Brien et al., 2009) assesses the tendency to engage in upward and downward appearance-focused comparisons. A sample item from the Upward Appearance Comparison Scale (UPACS) is, “I tend to compare my own physical attractiveness to that of magazine models.” A sample item from the Downward Comparison Scale (DACS) is, “At parties I often compare my looks to the looks of unattractive people.” For both subscales, each item was rated on a 5-point scale (1 = *Strongly disagree*, 5 = *Strongly agree*), and items were averaged with higher scores indicating a greater tendency to engage in appearance-related comparisons. These scales have yielded evidence of internal consistency and construct validity among undergraduate women (O’Brien et al., 2009). In the current study, Cronbach’s alpha was .93 for UPACS and .95 for DACS.

Body dissatisfaction. Participants completed the Body Dissatisfaction subscale of the Eating Disorder Inventory (EDI; Garner, Olmstead, & Polivy, 1983). Items were rated on a 6-point scale (with *Never* was coded as 1 and *Always* was coded as 6), and higher mean scores indicated greater body dissatisfaction. This subscale has established evidence of criterion validity (Garner et al., 1983) and internal consistency in studies with university women (e.g., Hund & Espelage, 2006; Vartanian & Hopkins, 2010). In the current study, Cronbach’s alpha was .89.

Demographics. Finally, participants reported their age, ethnicity, height and weight. BMI was calculated as kg/m².

Statistical Analyses

Prior to conducting the primary analyses, data were screened for missing data and for univariate and multivariate outliers. No univariate outliers were identified, and omitting two multivariate outliers did not affect the results. For multi-item scales, missing values were replaced with the series mean (0.2% of all cases). Correlational analyses were conducted to examine the bivariate associations among all of the study variables. Structural equation modeling was used to simultaneously model the associations among the variables, using AMOS (Version 21.0). For each of the variables included in the model, we followed the recommendations outlined by Russell, Kahn, Spoth, and Altmaier (1998) to create three parcels of measured indicators so that each variable could be

Table 1

Bivariate correlations, means, and standard deviations for demographic variables and all variables included in the structural equation model.

	1	2	3	4	5	6	7
1. Age	–						
2. BMI	.13*	–					
3. SCCS	.12*	.003	–				
4. INT-G	–.17**	.10	–.25***	–			
5. UPACS	–.22***	.05	–.37***	.66***	–		
6. DACS	–.13*	.16**	–.35***	.41***	.51***	–	
7. EDI-BD	–.004	.47***	–.27***	.45***	.36***	.23***	–
<i>M</i>	19.73	21.43	52.80	27.29	3.23	2.33	3.79
<i>SD</i>	3.70	3.31	12.97	8.69	1.02	1.02	1.10

Note. BMI: body mass index; SCCS: Self-Concept Clarity Scale; INT-G: Internalization-General subscale; UPACS: Upward Appearance Comparison Scale; DACS: Downward Appearance Comparison Scale; EDI-BD: Eating Disorder Inventory-Body Dissatisfaction.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

treated as a latent factor. Indices of model fit included χ^2 (although non-significant values indicate an adequate-fitting model, significant values are common for large sample sizes); Comparative Fit Index (CFI; values above .95 indicate good fit); Normed Fit Index (NFI; values above .95 indicate good fit); and Root Mean Square Error of Approximation (RMSEA; values less than .05 indicate good fit and values less than .08 indicate adequate fit; Kline, 2005). Indirect effects were tested with bootstrapping analyses (Shrout & Bolger, 2002). In cases of multiple mediation, the individual indirect effects were examined using the SPSS macro provided by Preacher and Hayes (2008).

Results

Correlational Analyses

Table 1 presents the bivariate correlations among all of the variables in this study. Of particular note, thin-ideal internalization, upward appearance comparisons, and downward appearance comparisons were positively correlated with body dissatisfaction. Thin-ideal internalization was positively correlated with upward and downward appearance comparisons. Finally, self-concept clarity was negatively correlated with thin-ideal internalization, upward appearance comparisons, downward appearance comparisons, and body dissatisfaction.

Structural Equation Modeling Analyses

Model 1. This first model tested the hypothesis that thin-ideal internalization would mediate the connection between appearance-related social comparison tendencies and body dissatisfaction, and that thin-ideal internalization and appearance-related social comparison tendencies would mediate the association between self-concept clarity and body dissatisfaction (Fig. 1). The overall model fit was good, $\chi^2(81; N=277)=2.07$, $p < .001$, NFI = .96, CFI = .98, RMSEA = .06, and explained 25% of the variance in body dissatisfaction. Parcel factor loadings were all significant ($ps < .001$), and ranged from .80 to .89 for self-concept clarity, .89 to .95 for thin-ideal internalization, .91 to .96 for upward comparisons, .91 to .95 for downward comparisons, and .75 to .94 for body dissatisfaction.

We next explored the hypothesized mediation paths (indirect effects). Thin-ideal internalization mediated the association between upward social comparisons and body dissatisfaction (95% CI = .17 to .48), but the indirect effect for downward social comparisons was not statistically significant (95% CI = –.01 to .12). The

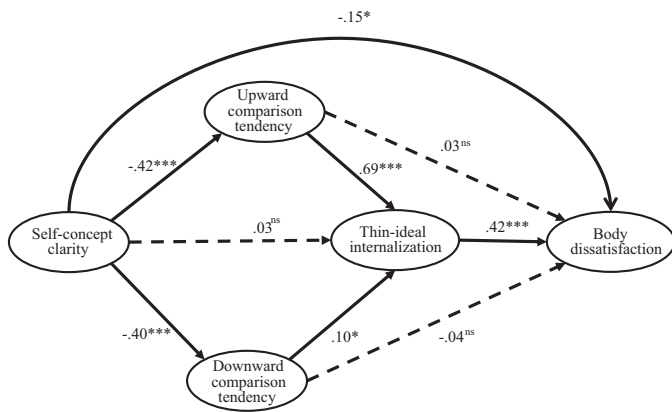


Fig. 1. Structural equation model predicting body dissatisfaction with thin-ideal internalization as the mediator between self-concept clarity and body dissatisfaction (Model 1). Solid lines represent significant paths; dashed lines represent non-significant paths. Values represent standardized path coefficients. * $p < .05$ and *** $p < .001$.

total indirect path from self-concept clarity to body dissatisfaction was significant (95% CI = $-.21$ to $-.04$). However, follow-up analyses indicated that thin-ideal internalization was a significant mediator (95% CI = $-.01$ to $-.003$), but that upward comparisons (95% CI = $-.01$ to $.003$) and downward comparisons (95% CI = $-.004$ to $.004$) were not. Upward comparison tendencies were a significant mediator of the association between self-concept clarity and thin-ideal internalization (95% CIs = $-.21$ to $-.10$), but the indirect effect for downward comparisons was not statistically significant (95% CI = $-.06$ to $.003$).

Model 2. In this second model, we examined whether appearance-related social comparison tendencies mediated the connection between thin-ideal internalization and body dissatisfaction (Fig. 2). This model also fit the data well, $\chi^2(81; N=277) = 1.63$, $p < .001$, NFI = .97, CFI = .99, RMSEA = .05, and explained 25% of the variance in body dissatisfaction. Unlike Model 1, in this model, self-concept clarity had a significant direct effect on thin-ideal internalization. Thin-ideal internalization, in turn, was a significant mediator of the connection between self-concept clarity and upward appearance comparisons (95% CI = $-.24$ to $-.05$), downward appearance comparisons (95% CI = $-.15$ to $-.10$), and body dissatisfaction (95% CI = $-.19$ to $-.04$). However, neither upward appearance comparisons (95% CI = $-.005$ to $.002$) nor downward appearance comparisons (95% CI = $-.003$ to $.003$)

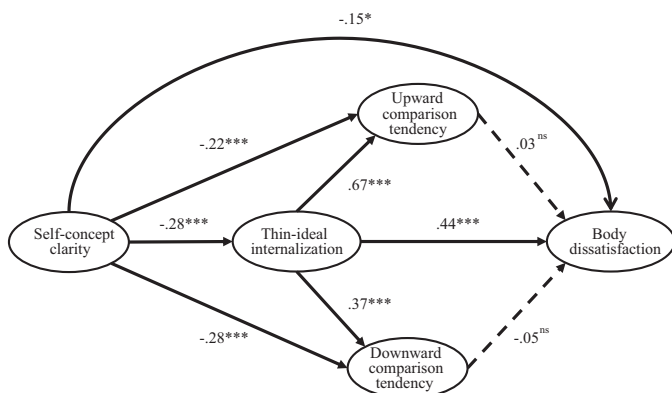


Fig. 2. Structural equation model predicting body dissatisfaction with appearance-related social comparisons as mediators between self-concept clarity and body dissatisfaction (Model 2). Solid lines represent significant paths; dashed lines represent non-significant paths. Values represent standardized path coefficients. * $p < .05$ and *** $p < .001$.

mediated the association between self-concept clarity and body dissatisfaction. Similarly, neither upward appearance comparisons (95% CI = $-.01$ to $.02$) nor downward appearance comparisons (95% CI = $-.01$ to $.01$) mediated the association between thin-ideal internalization and body dissatisfaction.

Discussion

The purpose of the present study was to further understand the predictors of body dissatisfaction. In particular, we examined the nature of the associations among self-concept clarity, thin-ideal internalization, appearance-related social comparison tendencies, and body dissatisfaction. First, although both of the models we tested fit the data well, our results most strongly support the view that thin-ideal internalization mediates the association between appearance comparison tendencies and body dissatisfaction (Halliwell & Harvey, 2006; Keery et al., 2004; Rodgers et al., 2011; Shroff & Thompson, 2006). These findings suggest that repeatedly comparing one's appearance to that of others (particularly upward comparisons) may facilitate thin-ideal internalization, which in turn contributes to body dissatisfaction. Although one study (Blowers et al., 2003) did find that appearance-related comparisons mediated the association between thin-ideal internalization and body dissatisfaction, another study failed to find that same effect (Fitzsimmons-Craft et al., 2012). The authors of the latter study suggested that the absence of a mediation effect in their study may have been due to the fact that the measure of social comparison that they used did not differentiate upward and downward comparisons. However, we failed to find mediation through appearance comparisons despite assessing both types of comparisons separately.

Thin-ideal internalization and social comparison tendencies are both well-established risk factors of body dissatisfaction (Keery et al., 2004; Shroff & Thompson, 2006), and the present study examined a factor that may help explain individual differences in thin-ideal internalization and social comparison tendencies. Theoretically, individuals with low self-concept clarity should have a propensity to search for external sources that may help define their sense of identity. Consequently, women who are low in self-concept clarity might be more likely to engage in appearance-related comparisons and more likely to have internalized the thin ideal. Our results are consistent with this hypothesis. We found that self-concept clarity was negatively correlated with appearance comparison tendencies and thin-ideal internalization. Furthermore, we showed that thin-ideal internalization mediated the association between self-concept clarity and body dissatisfaction, and that upward comparison tendencies (and to a lesser extent downward comparison tendencies) mediated the association between self-concept clarity and thin-ideal internalization. The negative association between self-concept clarity and thin-ideal internalization is consistent with the findings of two previous studies that have tested this association (Cahill & Mussap, 2007; Vartanian, 2009). Furthermore, the mediational role of thin-ideal internalization between self-concept clarity and body dissatisfaction replicates the findings of Vartanian (2009). The present study extends these findings by suggesting that appearance comparison tendencies can account for the association between self-concept clarity and thin-ideal internalization. The negative correlation found between self-concept clarity and social comparison tendencies is consistent with Festinger's (1954) social comparison theory and with a few studies from the social psychology literature (Butzer & Kuiper, 2006; Stapel & Tesser, 2001). The present study, however, is the first to illustrate this association specifically in the context of appearance-related social comparisons, and the first to demonstrate that appearance-related social comparison

tendencies mediate the relation between self-concept clarity and thin-ideal internalization.

Taken together, the findings of the present study suggest that women who lack a clearly defined sense of identity regularly compare their appearance to other women and internalize the thin ideal, perhaps as a means of defining their own identity. Unfortunately, defining their self-concept in these ways can have negative implications for women's body image. The findings highlight the importance of targeting self-concept clarity, appearance-related social comparison tendencies, and thin-ideal internalization in programs seeking to prevent or reduce body dissatisfaction. Programs that help individuals develop a clearer identity, one that is not based on appearance (e.g., O'Dea, 2004), may in turn reduce appearance-related social comparison tendencies and thin-ideal internalization and may improve their body satisfaction. Furthermore, efforts to reduce appearance-related social comparison tendencies may be particularly worthwhile given that appearance-related social comparison tendencies appear to be a mechanism through which low self-concept clarity contributes to thin-ideal internalization and, consequently, to body dissatisfaction. One possibility would be to use media analysis techniques; Posavac, Posavac, and Weigel (2001) found that women who were trained to use these techniques recognized the inappropriateness of, and were less likely to use, thin media models as comparison targets compared to those who receive no such training. Another possibility is suggested by Lew, Mann, Myers, Taylor, and Bower (2007): In their study, women who engaged in a writing exercise, in which they made non-appearance comparisons to models on dimensions on which they felt superior, experienced positive changes in their body image. Thus, encouraging women to engage in non-appearance-related comparisons can lead to improvements in their body image.

One limitation of the present study is that the cross-sectional nature of data prevents us from making causal inferences. For example, it may be that repeatedly comparing oneself to targets (or to societal standards) that are discrepant from one's self-image can create identity confusion and a less clear self-concept. Therefore, it would be important for future studies to use longitudinal and experimental designs in order to outline the causal or temporal sequences among the variables examined in the present study. It would be particularly important to investigate the associations among these variables with younger samples as this might provide important insights into the developmental trajectory of factors that predict body image concerns. Adolescence is developmental period that involves changes in identity (Kroger, Martinussen, & Marcia, 2010), and during which increases in social comparisons to media models and thin-ideal internalization are observed (Clay, Vignoles, & Dittmar, 2005). Thus, research with adolescent samples may enable more timely interventions that might prevent the development of body image concerns.

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