

Body on My Mind: The Lingering Effect of State Self-objectification

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Abstract Objectification theory explicates a model in which women are socialized to view their own bodies as objects to be evaluated. In the current study, we used a 2 (self-objectification condition: swimsuit versus sweater) × 2 (gender) factorial design to examine whether body-related thoughts continued after women were removed from a self-objectifying situation. Results showed that, compared to participants in the other three groups, women in the self-objectification condition listed more body-related thoughts during a free response task given after they had re-dressed. The amount of shame experienced during self-objectification mediated the relationship between self-objectification condition and lingering body-related thoughts. This study adds to the understanding of how the process of self-objectification works to maintain women's focus on their appearance.

Keywords Objectification · Gender · Body image · Shame

Objectification theory (Fredrickson & Roberts, 1997) proposes that the American culture places a constant emphasis on women's bodies as objects to be examined and consumed for others' pleasure. This reduction of

women as people to women as objects occurs through the media portrayal of women and in everyday social interaction and conversation (for a review, see Fredrickson & Roberts, 1997). Living in an objectifying culture can lead to experiences of self-objectification, in which women view themselves from a third person perspective, as mere objects to be evaluated. Research has shown that, during a state of self-objectification, women report greater negative affect and shame and show disrupted cognition (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; Hebl, King, & Lin, 2004; Quinn, Kallen, Twenge, & Fredrickson, 2006). In the current research we sought to build on previous findings by demonstrating that women, but not men, who have experienced a state of self-objectification continue to think about their bodies even as they move out of the self-objectifying situation. Furthermore, we examined whether the link between self-objectification and lingering body thoughts is mediated by the amount of shame experienced during the self-objectification context. These findings add to the current theoretical knowledge of how self-objectification serves to affect and change women's self-definition.

American women encounter many situations that can lead to self-objectification; these range from every day body-related comments (e.g., Swim, Hyers, Cohen, & Ferguson, 2001) to an onslaught of media images (e.g., Wolf, 1991) to male gaze (e.g., Calogero, 2004). In the first empirical test of the effects of state self-objectification, Fredrickson et al. (1998, Study 1) brought women into the lab to try on either a swimsuit or a sweater as part of an ostensible study of consumer attitudes and emotion. Wearing swimsuits was proposed to induce self-objectification because most people are not only judging how the suit feels on the body, but are also thinking about how they will appear to others when wearing the suit. That is, a person wearing a swimsuit typically takes a third person

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perspective on the self, thinking of the self as an object to be evaluated. Compared to women wearing sweaters, women wearing swimsuits reported more body shame and negative affect. In a second study both men and women who wore swimsuits reported a greater belief that they were defined by their bodies, as measured by a modified Twenty Statements Test (Kuhn & McPartland, 1954), than was the case for men and women who wore sweaters. However, for women only, feeling self-objectified led to increased body shame and negative emotions and reduced math performance (Fredrickson et al., 1998, Study 2). Other researchers who have used this paradigm have also shown that the negative effects of self-objectification do not occur for White women only, but extend to young women of various ethnic backgrounds (Hebl et al., 2004; Quinn et al., 2006). Similar results were found with anticipated male gaze as a manipulation of self-objectification; women who anticipated male gaze reported more shame and social physique anxiety than did those with no such anticipations (Calogero, 2004).

In the current research, we also used the swimsuit versus sweater manipulation to induce a state of self-objectification. We predicted that, even after participants had changed back into their street clothes and were no longer facing a mirror, those who experienced self-objectification would continue to think about their bodies. This point is important because it could demonstrate how temporary experiences of self-objectification may, over time, come to change the way that women think about themselves, thus potentially leading them to become increasingly body focused. Notably, although both men and women experience self-objectification (e.g., Hebl et al., 2004), research has shown that women are higher in trait level self-objectification (chronic body focus) and that women high in trait self-objectification are at risk for depression and eating disorders (Calogero, Davis, & Thompson, 2005; Moradi, Dirks, & Matteson, 2005; Noll & Fredrickson, 1998; Slater & Tiggemann, 2002; Tiggemann & Lynch, 2001; Tiggemann & Kuring, 2004; Tylka & Hill, 2004). Thus, in predicting that only women would continue to think about their bodies after a temporary state of self-objectification we sought both to highlight how state self-objectification is differentially experienced by men and women and to point to one reason why women are more likely than men to engage in chronic body monitoring.

In considering why a state of self-objectification might lead to extended body thoughts, we predicted that the experience of shame would play a key role. Previous researchers who manipulated state self-objectification have shown that one of the strongest outcomes of self-objectification is the experience of shame—both general shame and body specific shame (Calogero, 2004; Fredrickson et al., 1998; Quinn et al., 2006). Women who experience self-

objectification do not view their bodies indifferently. They think about how they look from a third person perspective and consider whether they fall short of an idealized image of beauty. The belief that one has failed to meet an important standard often results in the self-conscious emotion of shame during which people focus on their own actions and inadequacies (Lewis, 1971; Tangney, 1991). Notably, shame may be a particularly long lasting emotion because it is experienced when a person attributes her or his failure to an internal, stable cause (Tracy & Robins, 2004). Research on trait level self-objectification also shows that it is consistently and strongly correlated with shame (Miner-Rubino, Twenge, & Fredrickson, 2002; Slater & Tiggemann, 2002; Strelan, Mehaffey, & Tiggemann, 2003; Tiggemann & Kuring, 2004; Tiggemann & Lynch, 2001; Tylka & Hill, 2004). Thus, shame may be a crucial ingredient in how an experience (or many experiences over time) of self-objectification leads to an increased body focus.

In summary, the current research was designed to manipulate a state of self-objectification. We predicted that women in the self-objectification condition would be more likely than women in the no-self-objectification condition and men in either condition to report body-related thoughts after the conclusion of the manipulation. In addition, we tested whether the amount of shame experienced mediated the effect of self-objectification condition on body thoughts.

Method

Participants

One hundred fifty university students (88 women and 62 men) participated in return for credit toward their Introductory Psychology requirements. We did not collect demographic information for study participants, but the participant pool from which they came was 85% European-American. Ninety-five percent of the participants in the participant pool were between the ages of 17 and 20 years with a mean of 18 years.

Materials

Manipulation check of state self-objectification Following Fredrickson et al. (1998, Study 2), a modified Twenty Statements Test (TST; Kuhn & McPartland, 1954) served as a manipulation check. Participants were told to “think about how wearing this particular item of clothing makes you feel about your self and identity” and complete 20 statements beginning with the phrase “I am _____.” We used the same coding scheme developed by Fredrickson et al. (1998,

Study 2); participants' responses were coded by two independent coders for statements of body shape and size. Coders were unaware of both condition and gender. Interrater agreement was $\kappa=0.83$.

Phenomenological shame We used 19 items developed by Tangney, Miller, Flicker, and Barlow (1996) to tap into experiences of shame. The items are on a 1 to 5 scale, anchored at both ends (e.g., 1=*I want to hide* versus 5=*I want to be with others*; 1=*I don't feel exposed* versus 5=*I feel exposed*). Higher mean scores denote more feelings of shame. The internal reliability (Cronbach's alpha) of the scale for the present sample was 0.88.

Word stem completions As an implicit measure of body-related thought accessibility, participants were given 18 word stems, ten of which could be completed to make body-related words. The ten critical body words were big, muscle, weight, flab, stomach, shape, legs, body, hips, and arms. For example, the participant was presented with a card that showed the stem "mus_ _ _." Such a stem might be completed to form the word muscle (or mussel or musket or muster). For each word stem, participants were invited to form up to three different words. This task was created specifically for this study.

Free response thought listing As a more explicit measure of body-related thoughts, participants were given 2.5 min to perform a free writing, or stream of consciousness, task. They were instructed to describe any information that was currently in their awareness. This could include "images, ideas, memories, feelings, fantasies, plans, sensations, observations, daydreams, objects that catch your attention, or efforts to solve a problem... We are just interested in what you are thinking about right now." These instructions, as well as the time limit, were borrowed from Lane and Wegner (1995). The responses on this task were coded for the presence and number of body-related thoughts (e.g., "I think I need to get in better shape," "my body has gone downhill since I came to college," "I know that I judge myself and body weight"). Coders were unaware of both condition and gender. Inter-rater agreement was $\kappa=0.91$.

Procedure and design

Participants were tested individually in 60-min sessions. They were told that the study concerned "emotions and consumer decisions" and that they would be testing and giving their opinions on a number of everyday items including a scent, an article of clothing, and a new game. We used the same procedure as described in Fredrickson et al. (1998). Participants first tried a unisex scent and gave

their evaluations. This was done solely to bolster the cover story.

The second task was to try on and evaluate an item of clothing, which participants did alone in a completely private dressing room with a full-length mirror. Participants received all instructions via a computer in the laboratory room. By random assignment, the item of clothing was either a one-piece swimsuit or a v-neck sweater. Both were available in a range of sizes. Participants were asked to find the garment that most closely corresponded to their size and to try it on. Computer instructions asked the participants to look at themselves in the mirror and then complete a variety of questionnaires (via the computer) including the modified TST and the shame measure, as well as questionnaires about the garment itself which were asked in order to maintain the cover story. Afterward, participants re-dressed in their street clothes and opened the door to signal the experimenter that they had finished the task.

The third task was introduced as a new game called "Blanko!" Participants were moved to a different table with their backs to the full length mirror. On the table was a stack of 18 laminated cards numbered 1 through 18. Each card had the word "Blanko!" on one side and a word stem on the other side. Next to the stack of cards was a piece of paper with the numbers 1 through 18. Next to each number there were three blank lines. Participants were told to flip over each card and then try to think of up to three words to complete the stem as quickly as possible. For example, if they got the stem *sto_ _ _*, they could complete it with stomach, stopped, storage, etc. They were to write the completions on the corresponding piece of paper. If they could not think of a word completion, they were to write "Blanko!" because they were "drawing a blank" in thinking of another word. They would then move on to the next card.

After the word stem task, participants were told that as the final part of the study we would like them simply to write about whatever was on their minds. They were then given the instructions for the free response thought listing task and left alone for 2.5 min to write.

Participants were queried for suspicions and then debriefed. The experimenter revealed all aspects of the deception, answered participants' questions, and made certain they left the laboratory untroubled by the study. Before departing, participants were weighed with their backs to the numbers of the scale and their height was measured in order to calculate BMI. Thirteen participants (eight women, five men) chose not to be weighed.

The study was a 2 (self-objectification condition: swimsuit vs. sweater) \times 2 (gender) between-subjects factorial design. There were 45 women in the swimsuit condition, 43 women in the sweater condition, 25 men in the swimsuit condition, and 37 men in the sweater condition.

Results

BMI

The women's average body mass index (BMI) was $M=22.76$, $SD=2.41$, and the men's average BMI was $M=25.04$, $SD=2.44$. Both are within the range considered a healthy weight. We examined whether BMI was correlated with any of the dependent variables or the manipulation check. It was not: shame, $r=-0.07$, $p>0.05$, critical word stem completions $r=-0.14$, $p>0.05$, listing body thoughts $r=0.02$, $p>0.05$, body shape and size comments on the TST, $r=0.07$, $p>0.05$. Thus, BMI was not used as a covariate in any of the analyses below.

Manipulation check

We examined the TST responses for evidence that participants in the swimsuits were feeling more defined by their bodies than were participants in the sweaters. A 2 (gender) \times 2 (self-objectification condition: swimsuit or sweater) ANOVA revealed a main effect for condition, $F(1, 145)=11.67$, $p<0.01$, $\eta_p^2=0.07$, such that participants in the swimsuits (mean number of statements=3.03, $SD=2.46$) reported feeling more defined by their bodies than did those in the sweaters ($M=1.78$, $SD=1.72$). There was also a main effect for gender, $F(1, 145)=7.42$, $p<0.01$, $\eta_p^2=0.05$. Women reported more body statements overall ($M=2.81$, $SD=2.29$) than men did ($M=1.70$, $SD=1.84$). There was no interaction, $F<1$.

Shame

A gender by condition ANOVA on feelings of phenomenological shame revealed a main effect for gender, $F(1, 146)=5.65$, $p<0.05$, $\eta_p^2=0.04$, such that women ($M=2.49$, $SD=0.77$) reported more shame than men did ($M=2.23$, $SD=0.47$). There was not a reliable main effect for condition, $F(1, 146)=2.82$, $p>0.05$. As predicted, the gender by condition interaction was significant, $F(1, 146)=6.28$, $p<0.05$, $\eta_p^2=0.04$. Women in the swimsuit condition experienced more feelings of shame ($M=2.71$, $SD=0.88$) than women in the sweater condition ($M=2.25$, $SD=0.55$) and men in the swimsuit ($M=2.18$, $SD=0.47$) and the sweater ($M=2.27$, $SD=0.48$) conditions. Tukey's honestly significant difference post hoc tests confirmed that women in the swimsuit condition reported significantly more shame than did members of each of the other three groups, $p<0.05$.

Word stem completions

To examine accessibility of body-related thoughts, we conducted a 2 (gender) \times 2 (condition) ANOVA on propor-

tion of body word completions to total word completions on the word stem completion task. There was a main effect of gender, $F(1, 145)=11.84$, $p<0.01$, $\eta_p^2=0.08$, such that women completed a greater proportion of the word stems with body-related words ($M=0.51$, $SD=0.22$) than men did ($M=0.37$, $SD=0.27$). No other main effects or interactions were significant, all $ps>0.05$.

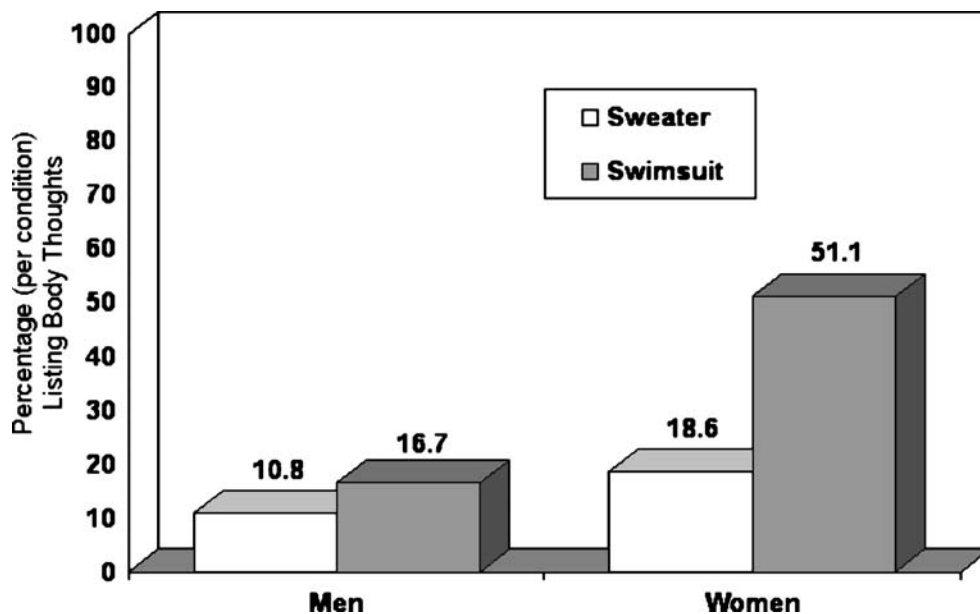
Thought listing task

Thoughts listed in the free response task were coded for body-related content. Because the modal number of body-related thoughts reported was zero, we created a dichotomous variable to signify whether a body-related thought was mentioned or not. When we examined the frequencies by gender and objectification condition, we found that only eight men mentioned body-related thoughts and they were evenly divided, with four in the swimsuit condition and four in the sweater condition, $\chi^2(1, N=61)=0.44$, ns. For the women, however, 23 participants in the swimsuit condition compared to eight in the sweater condition mentioned body-related thoughts, $\chi^2(1, N=88)=10.18$, $p<0.01$. See Fig. 1 for proportions in each condition.

Mediation analyses

To explore further these findings for women, we examined whether body shame mediated the relationship between condition and mention of body-related thoughts. Establishing mediation involves several steps (Baron & Kenny, 1986). First, the independent variable (condition) must predict the dependent variable (body-related thoughts). We used binary logistic regression to establish that condition was significantly related to body thoughts, $B=1.52$ ($SE=0.49$) Wald's $\chi^2=9.53$, $p<0.01$. The model-predicted odds ratio suggests that women in the swimsuit condition were 4.57 times more likely to mention body-related thoughts than were women in the sweater condition. Second, condition must predict the mediator (shame). A linear regression confirmed that this is true, $\beta=0.30$, $t=2.88$, $p<0.01$. Third, the mediator should predict the dependent variable. A binary logistic regression showed that shame is a significant predictor of body thoughts, $B=1.87$ ($SE=0.43$) Wald's $\chi^2=18.59$, $p<0.001$. The model-predicted odds ratio suggests that women higher in shame were 6.46 times more likely to mention body-related thoughts in their free response thought listing than were women lower in shame. Finally, in order to examine whether shame mediates the effect of condition on body-related thoughts we entered both simultaneously into a logistic regression. Shame remained highly predictive, $B=1.72$, $SE=0.44$, Wald's $\chi^2=15.19$, $p<0.001$, whereas effect of condition was reduced, $B=1.07$, $SE=0.56$, Wald's $\chi^2=3.65$, $p=0.06$. The estimated variance

Fig. 1 Percentage of participants in each condition who listed at least one body-related thought in the free response task at the end of the study.



accounted for by the full model was Nagelkerke $R^2=0.42$. A Sobel test of the mediating effect was significant, $z=2.49$, $p<0.05$, as was a bootstrapping technique to estimate indirect effects in simple mediation models as suggested by Preacher and Hayes (2004), which indicates that shame mediates the effect of condition on body-related thoughts.

Discussion

In the current study, both women and men who wore swimsuits reported a sense of being defined by their bodies. For women only, this self-objectifying situation led to increased shame, and, after they were re-dressed in their street clothes, continued thoughts about their bodies. The effect of the self-objectification manipulation on lingering body-related thoughts was mediated by shame. The more shame women experienced, the more likely they were to report body-related thoughts in the free response period.

There are several limitations to the present work. First, although we examined body-related thoughts after participants were re-dressed and away from the mirror, the amount of time that had passed since they were wearing the swimsuit was relatively small, approximately 10 min. Future researchers need to test the boundaries of this effect: Do body-related thoughts linger for 30 min? An hour? All day? Second, we did not capture activation of body- and appearance-related thoughts in our word stem completion task. This task was deliberately designed to be relatively implicit, such that we might capture body-related thoughts even if participants were not aware of or unwilling to report them. It is not clear at this point whether we failed to see

the predicted interaction on this measure because it was not sensitive enough or because it was not idiosyncratic enough. That is, it may be the case that each person had her own particular appearance- and body-related concerns on her mind, but these concerns were not represented in the ten critical words chosen for the word stem completion task. On the other hand, the fact that body-related thoughts came out so clearly when participants were simply allowed to write about whatever was on their mind speaks to both the clarity of the concerns women have and to the continued effects of experiencing self-objectification.

American women experience many instances of objectification. These experiences can be painful and disruptive in the short term for all women. Some women, however, come to internalize the observer's perspective and begin chronically to monitor their bodies and their appearance, which can lead to a host of long-term negative consequences, such as depression and eating disorders (e.g., Calogero et al., 2005; Moradi et al., 2005; Tiggemann & Kuring, 2004; Tylka & Hill, 2004). What leads some women to be more vulnerable to higher trait self-objectification? Clearly, there will be many answers to this question, including frequency and severity of interpersonal objectifying experiences, amount and type of social pressure from peers and parents, and consumption of mainstream media, to name but a few possibilities. The current study gives an initial clue: Women who experience the most shame in a state of self-objectification are likely to continue to ruminate on their bodies even after the objectifying stimulus has passed.

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