

The Effect of Thin Ideal Media Images on Women's Self-Objectification, Mood, and Body Image

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Abstract Objectification theory (Fredrickson and Roberts, *Psychology of Women Quarterly*, 21, 173–206, 1997) contends that experiences of sexual objectification socialize women to engage in self-objectification. The present study used an experimental design to examine the effects of media images on self-objectification. A total of 90 Australian undergraduate women aged 18 to 35 were randomly allocated to view magazine advertisements featuring a thin woman, advertisements featuring a thin woman with at least one attractive man, or advertisements in which no people were featured. Participants who viewed advertisements featuring a thin-idealized woman reported greater state self-objectification, weight-related appearance anxiety, negative mood, and body dissatisfaction than participants who viewed product control advertisements. The results demonstrate that self-objectification can be stimulated in women without explicitly focusing attention on their own bodies.

Keywords Self-objectification · Objectification theory · Body image · Thin ideals · Media images

Introduction

The present study highlights self-objectification as a previously unexamined variable that may be involved in the female response to media stimuli. The central purpose of the study was to examine whether viewing thin-idealized

media images would increase state self-objectification, negative affect and body dissatisfaction in young Australian women. In investigating the effects of experimental exposure to magazine advertisements featuring thin female models, the present study builds upon the existing media effects literature and presents a new test of Fredrickson and Roberts' (1997) objectification theory.

There is no doubt that Western women are subject to a great deal of pressure to conform to the thin ideal of feminine beauty. As a result, many experience body dissatisfaction in the form of weight concern, and a sizeable majority will actively seek to reduce their weight (Rodin et al. 1985). Current sociocultural theory offers the most robust theoretical framework for understanding body dissatisfaction, contending that the thin ideal is created and reinforced by a number of social influences (Thompson et al. 1999). Among these, the mass media have been identified as the most pervasive and the most powerful (Groesz et al. 2002).

In particular, fashion and beauty magazines have been accused of leading the charge in disseminating the thin ideal (Silverstein et al. 1986). One content analysis of 69 American women magazines revealed that 94% displayed an image of a thin-idealized model or celebrity on the cover (Malkin et al. 1999). By failing to present a diverse range of body types, fashion magazines promote thinness as both the desired, and more insidiously, the prevailing norm for women. Implicit is the suggestion that a deviation from this thin ideal is abnormal (Kilbourne 1994). It is therefore not surprising that thin-idealized images featured in fashion magazines can stimulate body image disturbance in girls and women.

Strong correlational evidence from both North American and Australian samples supports this link between exposure to fashion magazines and body image. For example,

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viewing fashion magazines has been found to predict body dissatisfaction (Harrison and Cantor 1997; Botta 2003), drive for thinness (Harrison and Cantor 1997), and eating disorder symptomology (Stice and Shaw 1994; Harrison 2000). This relationship has been found to be mediated by a number of other factors, including restrained eating (Mills et al. 2002) and thin-ideal internalization (Thompson and Stice 2001). In addition, experimental research has revealed a causal relationship between brief magazine exposure and immediate body image in women. Groesz et al.'s (2002) meta-analysis of this experimental research concluded that women who viewed images of thin models consistently reported poorer body image outcomes than participants who viewed images of average weight models, plus-size models, or neutral objects. Effects were observed on body dissatisfaction, negative mood, and self-perception of physical attractiveness (Groesz et al. 2002).

While this evidence sheds light on the potentially deleterious role of the media in contributing to women's body image disturbance, there remains a need to identify the psychological mechanisms in operation during and after media exposure that create dissatisfaction with the body. The present study offers an initial exploration of the practice of self-objectification as a potential mechanism. Fredrickson and Roberts' (1997) objectification theory asserts that women are uniquely subject to cultural and interpersonal experiences in which the female body is inspected, evaluated, and treated as an object valued primarily for its use to others. Experiences of sexual objectification are posited to socialize women to adopt an observer's perspective of their physical selves. When engaged in this process, which is termed self-objectification, attentional resources are directed to the task of monitoring and assessing these observable body characteristics.

Fredrickson and Roberts (1997) conceptualize self-objectification as both an emotional state and a personality trait. Hence, experiences of self-objectification differ across women. The extent to which the third-person perspective has been internalized is said to determine the level of trait self-objectification, which is stable across time. In contrast, level of state self-objectification will fluctuate, increasing in situations that accentuate awareness of an observer's perspective of the body (Fredrickson et al. 1998). A host of negative experiences have been associated with high trait self-objectification in both North American and Australian samples, including appearance anxiety (e.g., Tiggemann and Slater 2001; Calogero 2004), body shame (e.g., Noll and Fredrickson 1998; Tiggemann and Lynch 2001; Tiggemann and Slater 2001), decreased intrinsic motivation and self-efficacy (e.g., Gapinski et al. 2003), disordered eating (e.g., Noll and Fredrickson 1998; Tiggemann and Slater 2001), and depression (e.g., Miner-Rubino et al. 2002; Tiggemann and Kuring 2004).

Despite considerable interest in objectification theory as an explanatory framework, few researchers have investigated the effects of state self-objectification by employing experimental methods. Early experimental enquiry demonstrated that women's state self-objectification can be increased in situations where attention is explicitly focused on one's physical appearance by trying on a swimsuit (Fredrickson et al. 1998; Hebl et al. 2004; Quinn et al. 2006). However, self-objectification also seems to occur in situations in which women are not explicitly directed to focus on their appearance. For example, Calogero (2004) demonstrated that the anticipation of a male gaze increased self-objectification in young women. Further, exposure to sexually objectifying words has also been demonstrated to prime self-objectification (Roberts and Gettman 2004). In order to better understand the nature of self-objectification and its relationships with affect and body image, research must continue to identify situational factors that can trigger self-objectification.

Fredrickson and Roberts (1997) suggest that one of the most common means of perpetuating sexual objectification is through the visual media, and that viewing images of the sexualized female body or images in which sexual objectification is depicted may increase self-objectification in women. Surprisingly, very few researchers have examined the relationship between media exposure and self-objectification, and the few studies in this area are correlational in nature. Morry and Staska (2001) found a significant correlation between exposure to fashion and beauty magazines and trait self-objectification. In contrast, Harrison and Fredrickson (2003) showed that adolescent women who read sports magazines exhibit lower levels of trait self-objectification than those who do not regularly read these magazines. In a second experimental study, Harrison and Fredrickson also demonstrated that exposure to video footage of women playing sports that emphasize leanness elevated self-objectification in white adolescent women.

Although fashion magazines arguably provide the most common form of media targeted towards women, researchers have not examined the effect of experimental exposure to images appearing in the print media using the principles of objectification theory. The present study addresses this gap in the existing research. The present study also aimed to extend the type of stimulus material typically used in media effects research. Differences in content across magazine images may differentially predict body image disturbance. For example, in an Australian study, Tiggemann and McGill (2004) found that women who viewed images of a body part of a thin model (often referred to as "body-isms"; Hall and Crum 1994) exhibited greater body dissatisfaction than women who viewed images of the full body of a thin model or product control images. These body-isms objectify

women by reducing their bodies to mere parts. In the current study, we aimed to use another potentially objectifying form of image. Commercial images of a thin, attractive woman being looked at or touched by attractive men commonly occur in fashion and beauty magazines. Fredrickson and Roberts (1997) suggest that women may experience objectification vicariously by viewing other women being sexually objectified. Thus, images which featured thin-idealized females subject to male attention were used in the present study. Viewing advertisements which explicitly show an attractive man looking at a thin woman may prime women to take a third-person perspective of their own body and consequently experience more self-objectification, appearance anxiety, negative mood, and body dissatisfaction.

In sum, the present study attempted to combine two previously separate bodies of research: that in media effects and that in self-objectification. There were two central aims. The first aim was to investigate the effect of media images that depict the thin ideal on women's self-objectification, in addition to appearance anxiety, negative mood, and body dissatisfaction. The second aim was to extend the type of stimulus used in media research by using objectifying images which feature an attractive man attending to a woman. Two major hypotheses were tested.

- Hypothesis 1 Controlling for trait levels of self-objectification, participants who view images featuring a thin-idealized woman (with or without a man) will exhibit higher state self-objectification, appearance anxiety, negative mood and body dissatisfaction than participants who view product control images.
- Hypothesis 2 Controlling for trait levels of self-objectification, viewing images featuring thin-idealized women with men will produce higher levels of state self-objectification, appearance anxiety, negative mood, and body dissatisfaction than images featuring a thin-idealized woman only.

Method

Design

The study employed a between-subjects experimental design with three levels of the independent variable (image type: product control, thin-idealized female, thin-idealized female with male) to investigate effects on state self-objectification, appearance anxiety, negative mood, and body dissatisfaction.

Participants

The participants were 90 female undergraduate students of first year psychology at Flinders University in South Australia, aged between 18 and 35 years. There were 30 participants in each of three experimental conditions.

Materials

Experimental Manipulation: Image Type

Participants were randomly assigned to view one of three image sets: a product control set, a thin-idealized female set or a thin-idealized female with male set. The product control set contained 15 full-page magazine advertisements which featured products without people. The thin-idealized female set contained 11 advertisements which featured most of the body and face of a thin, attractive female model. To reduce demand effects, this set also contained four advertisements from the product set. The thin-idealized female with male set contained 11 advertisements featuring a thin-idealized woman depicted as subject to attention (being looked at or touched) by at least one man and the four product advertisements that appeared in the thin-idealized female set. Each image was photocopied in color and presented on an A4-size laminated card.

The stimulus materials were drawn from 20 popular Australian women's fashion magazines published between April and June 2006. Fashion and beauty magazines were chosen because they feature more advertisements depicting thin-idealized women than other magazines. Titles included *Cosmopolitan*, *Cleo*, *Vogue*, *Russh*, *Shop Til You Drop*, *Marie Claire*, *New Woman*, *Harper's Bazaar* and *Madison*. Specific publications were selected on the basis of marketing towards young adult women, thereby matching the age of the sample (18 to 35 years).

The original pool of 81 advertisements was reduced to a set of 37 through the use of data from a pilot test. A small group of female volunteers ($N=8$) viewed each of the 81 advertisements. A series of 7-point Likert scales were used to rate the effectiveness of the advertisement and the appeal of the advertisement, and where applicable, the physical attractiveness of the female featured and the extent to which the woman embodied the thin ideal. Advertisements were matched across conditions based on the mean scores obtained on each of the four variables to create three equivalent image sets.

The advertisements used were rated as both moderately effective ($M=4.76$, $SD=1.62$) and appealing ($M=4.82$, $SD=1.60$). One-way analyses of variance (ANOVAs) revealed that the effectiveness of the advertisements was not significantly different across conditions, $F(2, 261)=.16$, $p=.86$. Similarly, the appeal of the advertisements did not significantly differ across conditions, $F(2, 261)=.54$, $p=.59$.

The women appearing in the advertisements were rated as physically attractive ($M=5.79$, $SD=1.06$) and very thin ($M=6.18$, $SD=.96$). Physical attractiveness in the advertisements featuring women did not differ, $t(174)=.50$, $p=.62$, nor did the extent to which the models embodied the thin ideal, $t(174)=.24$, $p=.82$. It was concluded that the three image sets were equivalent in advertising appeal and effectiveness, and the two thin ideal image sets featured female models of equivalent attractiveness and thinness.

Consumer Habits

A media consumption questionnaire catalogued participants' history of fashion and beauty magazine exposure. Participants were presented with a list of Australian women's magazines and asked to indicate each publication that they had looked at or read in the last month. These were summed to produce a measure of magazine exposure. Participants were also asked to estimate the amount of time spent looking at or reading each of these magazines during this time. Individual time estimates were summed to produce a measure of total time spent reading women's magazines in the previous month. In addition to providing information on participants' media usage, this measure was included to promote belief in the purported focus of the study which was presented as "the effectiveness of magazine advertising targeted towards women."

Consumer Response

Participants rated each of the 15 advertisements using a "Consumer Response Questionnaire" adapted from Mills et al. (2002). Participants indicated the extent to which they agreed with four statements on a 5-point scale (1=strongly disagree, 5=strongly agree). The following items appeared in the questionnaire: (a) If I saw this advertisement in a magazine it would catch my eye, (b) this image is attractive, (c) this image is interesting, and (d) overall, this advertisement is effective. The purpose of this measure was to lend credence to the cover story and to encourage participants to attend closely to the stimulus material. Hence scores on this measure were not tabulated or analyzed.

Recall

Participants were asked to recall the products and associated brand names featured in the advertisements they viewed. One point was awarded for each brand name and product type correctly recalled to yield a score out of 30. This information was collected to lend credence to the cover story.

State Self-objectification

A modified version of the Twenty Statements Test used by Fredrickson et al. (1998) measured state self-objectification. Participants were asked to describe themselves by completing ten sentences about their identity that begin with the phrase "I am". Two independent coders who were blind to experimental condition categorized participants' responses into six categories: (a) body shape and size, (b) other physical appearance, (c) physical competence, (d) traits or abilities, (e) states or emotions and (f) uncodable or illegible. State self-objectification was operationalized as the number of times that a participant generated a response from the "body shape and size" or "other physical appearance" categories. The two raters agreed on the categorization of 97.4% of the responses overall. Interrater agreement on the categorization of "body shape and size" and "other physical appearance" responses was also high at 94.0%. Thus possible state self-objectification scores ranged from 0 to 10, with a greater number of responses from the two appearance-related categories indicating a higher level of state self-objectification.

Appearance Anxiety

Following Reed et al. (1991), the Physical Appearance State and Trait Anxiety Scale (PASTAS; state subscale) was used to measure weight anxiety. This measure consists of eight items which list parts or aspects of the body related to weight (e.g., "my thighs") embedded within a list of eight non-weight-related parts or aspects of the body (e.g., "my chin"). Participants were asked to indicate how anxious, tense or nervous they feel about their body "right now" using a 5-point rating scale (0=not at all; 4=exceptionally so). This yielded a weight-related anxiety total and a non-weight-related anxiety total. Possible scores for both weight and non-weight anxiety ranged from 0 to 32, with higher scores on these scales indicating higher levels of appearance anxiety. Internal consistency was high for both weight ($\alpha=.90$) and non-weight scales ($\alpha=.83$).

Negative Mood and Body Dissatisfaction

Visual Analogue Scales (VAS) were administered both immediately before and after the experimental manipulations to examine change in negative mood and body dissatisfaction. Following Heinberg and Thompson (1995), negative mood was assessed using five items measuring levels of anxiety, depression, happiness, anger and confidence. Body dissatisfaction was assessed by measuring levels of weight dissatisfaction and appearance dissatisfaction. Participants completed each item by marking a 100 mm horizontal line with a vertical line between

the polar anchors “none” and “very much.” Measuring the distance between “none” and the mark made by the participant to the nearest millimeter yielded a score out of 100 for each of the seven adjectives. VAS are a sensitive measure of small changes in mood and body dissatisfaction because initial responses cannot be easily recalled in subsequent administrations (Heinberg and Thompson 1995). Positive mood items were reverse-coded and the five individual mood scores were averaged to create an overall score for state negative mood. The two scores for weight and appearance dissatisfaction were averaged to create an overall score for state body dissatisfaction. Internal reliabilities were acceptable for both negative mood (Cronbach’s $\alpha=.79$) and body dissatisfaction (Cronbach’s $\alpha=.80$). Although body dissatisfaction was positively correlated with appearance anxiety ($r=.74$, $p<.05$), these variables were treated separately because we had pre-measures on one variable (body dissatisfaction) but not on the other (appearance anxiety).

Trait Self-objectification

The Self-Objectification Questionnaire developed and validated by Noll and Fredrickson (1998) was used to assess trait self-objectification. Participants were asked to rank a set of ten attributes in order of importance to physical self-concept, from most important (rank=1) to least important (rank=10). The list included five competence-based attributes (physical coordination, health, strength, energy level, and physical fitness level) and five appearance-based attributes (weight, sex appeal, physical attractiveness, firm/sculpted muscles, and measurements e.g., chest, waist, hips). The sum of the ranks for the competence-based items was subtracted from the sum of the ranks for the appearance-based items. This yielded a score within the range of -25 to $+25$. A higher score reflected reliance on an appearance-focused physical self-concept, which was interpreted as an indication of greater trait self-objectification.

Procedure

Participants were recruited to participate in a study ostensibly investigating the effectiveness of advertising targeted towards women. Participants were randomly allocated to one of the three experimental conditions (subject to equal numbers in each condition) and completed the initial questionnaire measures of consumer habits, negative mood, and body dissatisfaction. Participants then viewed the 15 advertisements in the prescribed order and completed the Consumer Response Questionnaire. Following this task, participants again rated mood and body dissatisfaction, in addition to state self-objectification and appearance anxiety. Trait self-objectification was measured after the dependent

variables, as it was expected that the experimental manipulation would not influence trait self-objectification scores. Finally, the recall test was administered and measures of height and weight were taken. Debriefing information was provided to participants through the university’s internet message board facility upon completion of data collection.

Results

Characteristics of the Sample

Participants ranged in age from 18 to 35 years, with a mean age of 20.48 years ($SD=4.33$). Mean Body Mass Index (BMI) was 21.81 ($SD=3.86$). This score is within the “normal weight” range defined by Garrow and Webster (1985). Mean trait self-objectification was .32 ($SD=14.47$), which is similar to that of an American college-age sample ($M=.82$; Fredrickson et al. 1998). Participants in the current study read an average of 3.1 ($SD=1.68$) fashion and beauty magazines in the month prior to testing and the mean reported time spent reading fashion and beauty magazines was 115 min ($SD=124.8$).

A series of one-way ANOVAs was conducted to ensure that there were no initial differences across the three experimental conditions. There were no significant group difference in age, $F(2, 87)=.08$, $p>.05$, BMI, $F(2, 87)=.41$, $p>.05$, or trait self-objectification, $F(2, 87)=1.55$, $p>.05$. There were also no significant differences between groups in the number of fashion and beauty magazines read in the month prior to testing, $F(2, 87)=.19$, $p>.05$, or in the time spent reading fashion and beauty magazines, $F(2, 87)=.10$, $p>.05$.

Statistical Considerations

A set of preliminary analyses tested whether trait self-objectification interacted with image type. In no case was there a significant moderating effect of trait self-objectification (all F 's <1). Thus, following Calogero (2004), trait self-objectification was instead added as a covariate in all analyses to remove the effects of underlying individual differences.

In order to test the two major hypotheses, two orthogonal planned contrasts were employed in an analysis of covariance (ANCOVA) for each outcome variable. The first contrast in the ANCOVA compared the two thin ideal conditions with the product control condition to examine whether viewing thin-idealized images would produce greater effects on the dependent variables than viewing product control images, as predicted in Hypothesis 1. The second contrast compared the two thin ideal conditions with each other to test Hypothesis 2, which predicted that the images featuring women with men would produce greater effects than those featuring women only.

Table 1 Adjusted means (Standard Error in Parentheses) by image type.

	Image type		
	Thin-idealized female <i>n</i> =30	Thin-idealized female with male <i>n</i> =30	Product control <i>n</i> =30
State self-objectification ^a			
<i>Adj M</i>	1.63	1.40	.87
(<i>SE</i>)	(.25)	(.24)	(.25)
Weight-related appearance anxiety ^a			
<i>Adj M</i>	15.22	12.80	10.91
(<i>SE</i>)	(1.21)	(1.20)	(1.21)
Non-weight-related appearance anxiety			
<i>Adj M</i>	4.53	3.42	3.65
(<i>SE</i>)	(.85)	(.84)	(.85)
Negative mood ^a			
<i>Adj M</i>	26.21	26.83	22.45
(<i>SE</i>)	(1.19)	(1.18)	(1.19)
Body dissatisfaction ^a			
<i>Adj M</i>	46.03	44.94	35.97
(<i>SE</i>)	(2.21)	(2.17)	(2.19)

Scale end-points: State self-objectification, 0–10; Weight-related appearance anxiety, 0–32; Non-weight-related appearance anxiety, 0–32; Negative mood, 0–100; Body dissatisfaction, 0–100

^a Denotes a significant effect ($p < .05$) of image type.

Experimental Effects on State Self-Objectification

Table 1 displays the adjusted mean scores obtained on each of the dependent variables by experimental condition. The first contrast used in testing Hypothesis 1 revealed a significant effect of thin-idealized images on state self-objectification, $F(1, 86)=4.47$, $p < .05$, $\eta_p^2 = .05$. State self-objectification was clearly higher in the thin-idealized conditions ($\text{adj } M=1.51$) than in the product control condition ($\text{adj } M=.88$). However, the second contrast used in testing Hypothesis 2 showed that there was no significant difference in state self-objectification between the thin-idealized female and thin-idealized female with male conditions, $F(1, 86)=.43$, $p > .05$.

As the state self-objectification scores were somewhat positively skewed ($\text{skew}=.854$), logarithmic transformation was carried out, as recommended by Tabachnick and Fidell (1996). Because analysis of the log transformed scores produced exactly the same results, the untransformed data have been retained for parsimony and ease of interpretation.

Experimental Effects on Appearance Anxiety

Table 1 shows that weight-related appearance anxiety was significantly higher in the thin-idealized conditions ($\text{adj } M=14.0$) than in the product condition ($\text{adj } M=10.9$), $F(1, 86)=$

4.38, $p < .05$, $\eta_p^2 = .05$, supporting Hypothesis 1. In contrast, Hypothesis 2 was not supported in that no significant difference was observed in weight-related appearance anxiety between the two thin-idealized conditions, $F(1, 86)=2.03$, $p > .05$. Non-weight-related appearance anxiety did not differ significantly between the thin-idealized conditions ($\text{adj } M=3.97$) and the product control condition ($\text{adj } M=3.66$), $F(1, 86)=.10$, $p > .05$, or between the two thin-idealized conditions, $F(1, 86)=.85$, $p > .05$.

Experimental Effects on Negative Mood and Body Dissatisfaction

For negative mood and body dissatisfaction, pre- and post-manipulation scores were available. Therefore, in addition to trait self-objectification, pre-manipulation negative mood and body dissatisfaction were entered as covariates in these analyses. Preliminary testing showed that the assumptions of linearity and homogeneity of regression slopes were not violated for these covariates.

The effect of thin-idealized images on negative mood was significant, $F(1, 85)=7.76$, $p < .05$, $\eta_p^2 = .08$. After adjusting for pre-manipulation scores, participants who viewed thin-idealized images experienced higher mean levels of negative mood ($\text{adj } M=26.5$) than participants who viewed product control images ($\text{adj } M=22.4$; see Table 1), in support of Hypothesis 1. Contrary to Hypothesis 2, the difference between the two thin-ideal conditions on negative mood was not significant, $F(1, 85)=.14$, $p > .05$.

A similar pattern emerged for body dissatisfaction. The effect of thin-idealized images on body dissatisfaction was significant, $F(1, 85)=12.48$, $p < .05$, $\eta_p^2 = .13$. As shown in Table 1, mean level of body dissatisfaction was higher in the thin-idealized conditions after the manipulation ($\text{adj } M=45.5$) than in the product control condition ($\text{adj } M=36.0$). There was no significant difference in body dissatisfaction across the two thin-ideal conditions, $F(1, 85)=.12$, $p > .05$.

State Self-Objectification as a Mediator

A final analysis was conducted to determine whether state self-objectification mediated the effect of image type on appearance anxiety, negative mood, and body dissatisfaction. However, the data did not satisfy Baron and Kenny's (1986) third precondition that the mediator must affect the dependent variables. State self-objectification was not significantly related to any of weight-related appearance anxiety ($r=.10$, $p > .05$), post-manipulation negative mood ($r=.16$, $p > .05$), or post-manipulation body dissatisfaction ($r=.15$, $p > .05$). As this precondition was not met, mediation could not be tested.

Discussion

The present study investigated the effects of exposure to images depicting thin female models on women's state self-objectification, appearance anxiety, mood, and body dissatisfaction. Confirming Hypothesis 1, women who viewed thin-idealized magazine advertisements demonstrated higher levels of state self-objectification, weight-related appearance anxiety, negative mood, and body dissatisfaction than women who viewed product control images. Exposure to thin-idealized images was not associated with anxiety related to parts or aspects of the body where weight was not a factor.

The present finding contributes to existing research in two separate ways. First, it supplements the media effects literature. The results provide additional evidence to suggest that exposure to thin-idealized magazine advertisements has a "small but consistent" effect on women's well-being (Groesz et al. 2002), by producing general declines in mood and body satisfaction and an increase in weight anxiety. More importantly, the present study is the first to demonstrate that magazine advertisements featuring a thin, attractive female model produce greater state self-objectification than control advertisements. As predicted by Fredrickson and Roberts (1997), the process of viewing this type of advertisement can encourage women to think about their physical appearance as if looking on as a critical observer. The results of the present study indicate that the body and its appearance become more salient points of reference for women in describing the self after this form of media exposure. Thus, self-objectification is introduced as a variable that should be examined further in future research on media effects.

Second, the current research makes a significant contribution to the field of objectification theory. The findings present further evidence that relatively subtle cues can stimulate self-objectification in young women. One important feature of the present research is that participants were not required to focus their attention on their physical appearance by trying on a swimsuit in front of a mirror, the method most used by self-objectification researchers (Fredrickson et al. 1998; Hebl et al. 2004; Quinn et al. 2006). Our results show that women do not need to be asked to appraise their looks in order to think about their physical appearance as if looking on as a critical observer. Just as this process can be activated through objectifying word primes (Roberts and Gettman 2004) or the anticipation of a male gaze (Calogero 2004), it would seem that typical magazine images featuring thin female models can encourage women to consider the appearance of the body by adopting a third-person perspective.

This finding that thin-idealized media images can generate self-objectification may have significant implications.

Images from the media are a constant presence in the lives of Western women, and the use of thin-idealized women in advertising is particularly ubiquitous (Malkin et al. 1999). Hence, it is likely that women experience an elevation in state self-objectification several times a day. It is not hard to imagine women scrutinizing aspects of their physical appearance from a third-person perspective when casually flicking through fashion magazines in a doctor's surgery, driving past billboards on the way to work, or browsing through CDs in a music store. When attentional resources are devoted to the task of thinking about the appearance of the self, other areas of cognitive and behavioral functioning have been found to suffer (Fredrickson et al. 1998; Hebl et al. 2004; Quinn et al. 2006). Given that links have been found between increases in state self-objectification and clinical symptoms (Fredrickson et al. 1998; Noll and Fredrickson 1998; Harrison and Fredrickson 2003), it is possible that prolonged exposure could place women at risk of developing more serious disturbances of mood and body satisfaction such as depression or eating disorders. These possibilities should be considered by future researchers.

Interestingly, in contrast to Hypothesis 2, the results demonstrate that magazine advertisements featuring attractive men looking at and touching thin women and advertisements featuring thin women without men are similar in their effects on women's self-objectification, mood, body dissatisfaction, and appearance anxiety. It would seem that exposure to any type of image that depicts a thin-idealized woman can provide a vicarious experience of objectification that can trigger the process of self-objectification as per the assertion of Fredrickson and Roberts (1997). Women can engage in this process when viewing images that explicitly show objectification taking place or when viewing images that merely serve to "align viewers with an implicit sexualizing gaze" (Fredrickson and Roberts 1997). The presence of a male in this type of media image does not seem to affect women's responses.

The current research has a number of methodological advantages over similar media studies. For example, several strategies were employed to control demand effects. The study was presented under the guise of an investigation into the effectiveness of advertising targeted towards women. To lend credibility to this claim, participants completed a measure of media consumption, rated the advertisements for effectiveness, and were given a recall test. As a final precaution, a small number of images featuring products without people were included in the thin-idealized image sets. A further strength of the present study is that the images used were carefully matched within and across conditions. The process of matching the images across four criteria helped to ensure that the sets were only categorically different in design elements pertinent to the experimental manipulation. However, future studies might

usefully also obtain explicit ratings on how objectifying the images were perceived to be.

One limitation is that the results are specific to a sample of young, Australian, college-educated females predominantly of European descent. Due care must be taken in generalizing the results to more diverse populations of women. It must also be noted that the results may not replicate beyond the laboratory. Here, the experimental protocol required women to examine the advertisements closely, and this experience may be categorically different to incidental exposure to such images; for example, during the casual perusal of a fashion magazine. However, participants in the present study viewed only 11 magazine advertisements, whereas many fashion magazines arguably feature ten times this number of thin-idealized images. If the negative effects are indeed cumulative, we might expect to see greater effects of naturalistic exposure.

These limitations aside, the present study offers new evidence to support the increasingly well-documented finding that viewing thin-idealized media images is detrimental to women's mood and body satisfaction. Moreover, the present study is an important first step in demonstrating that self-objectification occurs during media exposure through the use of an experimental design. The results offer a solid endorsement of both the sociocultural model of body image and objectification theory. Research must now clarify the nature of the relationship between thin-idealized images and self-objectification, so that a concerted effort can be made to reduce the negative outcomes associated with media exposure.

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