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# Media that Objectify Women: The Influence on Individuals' Body Image and Perceptions of Others

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Media that Objectify Women: The Influence on Individuals'  
Body Image and Perceptions of Others

by

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A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
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## ABSTRACT

Past research has examined body image and eating-related outcomes of exposure to mass media. This research has generally found that such exposure is a significant risk factor for body image disturbance and disordered eating. However, a causal relationship has not yet been firmly established. Several theories, including objectification theory (Fredrickson & Roberts, 1997), have attempted to explain this relationship with some success. The current study had two primary goals. First, it was designed to further explore the potential causal relationship between mass media exposure and body image and affect disturbance. Second, it attempted to go beyond individuals' body image and explore how exposure to objectifying media influences people's judgments of others. Briefly, the results revealed that exposure to media that objectify women was related to state body image disturbance, anger, and anxiety. Gender and internalization of cultural appearance ideals frequently played an important role in these relationships. Exposure to objectifying media did not predict participants' judgments of women's competence or attractiveness. However, interesting gender differences were observed.

## CHAPTER 1: INTRODUCTION

A person's appearance is determined by many factors including genetics, biology, behavior, and cultural standards. Due to these diverse and complex influences, the appearance of human beings varies greatly. Despite this diversity, the culture of western society sets forth a rigid ideal for appearance that holds that women should appear slender and thin while men should appear tall and heavily muscled, both with very low body fat (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). The pressure to conform to these ideals is thought to be a major contributing factor to the prevalence of body image and eating disturbance within western culture (Thompson et al., 1999; Wertheim, Paxton, & Blaney, 2004). This disturbance can manifest in many ways, whether it be people trying to change their own appearance or making biased judgments about others based on appearance. Western culture is thought to focus heavily on cultural appearance ideals such as thinness (Goodman, 1995), likely putting people who live in these cultures (such as the U.S.) under even greater pressure to conform to the ideals. Therefore, study of these ideals and their outcomes is especially relevant in Western cultures. In the U.S. and many other western societies, the mass media are a reflection of the socio-cultural environment and an ever-present influence that plays a major part in the lives of people of all ages (Comstock & Scharrer, 2007; Harris, 2004). Western mass media frequently

portrays cultural appearance ideals (Herbozo, Tantleff-Dunn, Gokee-Larose, & Thompson 2004; Levine & Murnen, 2009; Pope, Phillips, & Olivardia, 2000; Thompson et al., 1994) suggesting that it is potentially a strong influence on body image.

According to Levine and Murnen (2009), mass media and marketing, intentionally or incidentally, contain the following messages: “being sexually attractive is of paramount importance” (p. 14); “the source of ideals about attractiveness, style, and the best, most competitive practices for becoming and staying beautiful are obviously located outside the self” (p. 14); and “mass media are the most important and inherently enjoyable external source of the information, motivation, and products necessary to be attractive and fashionable” (p.14-15; Ballentine & Ogle, 2005; Labre & Walsh-Childers, 2003). The relationship between western mass media and negative outcomes, such as negative body image and eating disorders, is widely believed and well documented (Becker, 2004; Levine & Harrison, 2004). In a rather striking example of the powerful and fast-acting influence of western mass media, researchers (Becker et al., 2002; Becker, 2004) found that girls and women in Fiji exhibited virtually none of the symptoms of eating disorders such as anorexia and bulimia nervosa before the arrival of western television. A short time after its arrival, symptoms of eating disorders had emerged and the cultural appearance ideals had shifted to idolizing thinness over a fuller figured body type. Although not causal evidence, this study certainly provides compelling evidence for the relationship between western mass media, cultural appearance ideals, and eating pathology. This relationship is quite well established, but many researchers have questioned whether the relationship between mass media and body image disturbance and eating disorders is actually a causal one. After all, body image and eating disorders are

complex and multifaceted constructs that are determined by many factors including genetics, biology, and socio-cultural environment (Bulik, 2004; Cash & Pruzinsky, 2002). Levine and Murnen (2009) reviewed the existing evidence and concluded that it is clear that media exposure is related to negative body image and eating outcomes but that “engagement with mass media is probably best considered a variable risk factor that might well be later shown to be a causal risk factor” (p. 32). Further evidence for the (possibly causal) relationship, Groesz, Levine, and Murnen (2002) conducted a meta-analysis examining the experimental manipulation of viewing media images and its effect on body dissatisfaction. They found that participants who viewed thin ideal images, as opposed to average size models, plus size models, or inanimate objects, exhibited greater body dissatisfaction. Overall, it certainly appears that exposure to western mass media, and the appearance ideals it depicts, is related to negative body image and eating outcomes.

Many scientists have proposed that the influence of the media on body image and eating has increased in recent years. This could be due to the apparent increase in the media of models shown wearing less and less clothing. For example, since 1957, the percentage of female models depicted in a state of undress has more than doubled, up to 30% in popular women’s fashion magazines (Pope, Phillips, and Olivardia, 2000). This number has also increased to approximately 30% for men, but the gain was even greater for men who were virtually never depicted in states of undress in 1957. This increase indicates that cultural appearance ideals are placing more and more emphasis on the appearance of the nude human body, likely exacerbating the effects on the consumer’s body image. Not only is this emphasis increasing in media directed at adults, but it is

appearing in children's media as well. Herbozo, Tantleff-Dunn, Gokee-LaRose, and Thompson (2004) performed a content analysis of popular children's movies and found that the majority depicted female thinness and emphasized physical attractiveness. In addition, the majority depicted the cultural appearance ideal being related to positive attributes such as sociability, kindness, and happiness while depicting obesity as being related to evilness, stupidity, and cruelty. Further, approximately half of the movies depicted obesity as being related to food and eating. This phenomenon is clearly a part of both children's and adults' media. Thompson, Heinberg, Altabe, and Tantleff-Dunn (1999) noted that "...whenever thinness is esteemed by a society, its opposite, obesity, is seriously denigrated" (p. 86). They also argued that this increased depiction of cultural appearance ideals and weight prejudice, aimed at adults, adolescents, and children, accompanies an appearance ideal that is becoming more extreme in recent decades. For women, the thin ideal has become thinner and thinner while requiring large breasts and long legs. For men, the muscular ideal requires men to be bigger, taller, and more muscular, while retaining very low body fat. As the standards of beauty become more extreme, depictions in the media are becoming more common. This combination suggests that the influence of the media towards body image and eating disturbance will only grow stronger if current trends continue.

#### *Media Exposure and Body Image Disturbance*

In recent years, research has investigated the link between exposure to various forms of media and body image disturbance. These studies have included many types of media, but most have focused on television, magazines, and advertisements. Studies in this area include outcomes related to weight concerns, appearance concerns, drive for

thinness, eating disorder symptomatology, internalization of cultural appearance ideals, body dissatisfaction, and attitudes about dieting (Levine & Murnen, 2009).

Regarding television exposure, a meta-analysis of correlational studies, performed by Grabe, Ward, and Hyde (2008), found small to medium effect sizes between television exposure and body dissatisfaction, thin-ideal internalization, and disordered eating. However, there was variability among the results of these studies. For example, Borzekowski, Robinson, and Killen (2000) did not find a significant overall relationship between media exposure and weight and appearance concerns. Instead, they found only that time spent watching music videos was related to perceived importance of appearance and weight concerns. However, Harrison (2003) found that exposure to television depicting female appearance ideals predicted women's idealization of a female figure with smaller hips and waist and larger bust. The women expressed desire for their own appearance to match this ideal. This study also found that both female and male participants' approval of surgical body-alteration methods, such as liposuction and breast augmentation, was linked to exposure to television depicting female appearance ideals. Further complicating the relationship between television viewing and body image disturbance, Tiggemann (2005) found evidence that the content of the television and reasons for watching television, rather than the total amount of television watched, were predictive of negative outcomes such as drive for thinness among boys and girls and drive for muscularity among boys. Specifically, soap operas and music videos were related to the drives for thinness and muscularity. Despite the variety of findings and the apparent complexity of the relationships between television exposure and body image disturbance, a second meta-analysis supported the overall findings of Grabe et al. (2008).

Murnen, Levine, Groesz, and Smith (2007) found similar results such that there appear to be small but statistically significant correlations between general television exposure and negative outcomes such as thin ideal internalization, body dissatisfaction, weight and shape control, and disordered eating.

Periodicals are an important form of mass media that potentially provide stimuli that elicit body image disturbance. Grabe et al. (2008) examined exposure to periodicals and its influence on body dissatisfaction and appearance ideal internalization. They found that, like exposure to television, these relationships showed small to medium effect sizes. There was even evidence that the relationship may be stronger with magazines than with television. Evidence of the importance of this relationship came when Harrison and Cantor (1997) found that usage of media, both television and magazines, was related to disordered eating symptomatology, drive for thinness, and body dissatisfaction among college women. Among college men, it was related to endorsement of positive attitudes towards dieting and thinness for themselves and for women. Providing further evidence, Thomsen, Weber, and Brown (2002) found that exposure to fashion magazines was related to pathological dieting behaviors such as calorie restriction, intentional vomiting, laxative use, and use of diet pills among high school girls. The Murnen et al. (2007) meta-analysis found similar results, that magazine reading was not only significantly related to body image and eating disturbance, but that the effect sizes for these relationships were frequently larger for magazine exposure than for television exposure.

In addition to correlational studies, numerous studies using experimental methodology have been conducted in an attempt to test media exposure as a causal risk factor for body image disturbance. In order for these paradigms to work as intended, body

image disturbance must be conceptualized as, and exist as, state constructs that are malleable over time. Indeed, research in this area indicates that exposure to images of appearance ideals causes change in participants' body satisfaction, internalization of appearance ideals, and eating pathology. Specifically, Groesz, Levine, and Murnen (2002) conducted a meta-analysis which summarized 25 experimental studies. They found that experimental exposure to media including images of cultural appearance ideals caused a decrease in the participants' body satisfaction of moderate effect size. The decrease was even larger for adolescent participants when compared with adults. As another example, Grabe et al. (2008) conducted a meta-analysis examining studies that experimentally exposed participants to television and magazine media depicting appearance ideals. They found similar results such that participants viewing appearance ideal media exhibited decreased body satisfaction, increased internalization of cultural appearance ideals, and increased pathological eating behaviors when compared to participants who viewed control media. Overall, it appears that indeed, exposure to media depicting cultural appearance ideals is a possible causal risk factor for body image disturbance among women and men.

### *Mechanisms of Action*

A great deal of evidence supports the hypothesis that media influence body image and eating behavior. Therefore, many researchers have turned their attention to investigating the mechanisms of action by which this takes place. Internalization of cultural appearance ideals is an important and probably causal factor linking media exposure to negative body image and eating disturbance (Thompson & Stice, 2001). Mass media are a large source of information about appearance ideals, often portraying

an unrealistic standard. Internalization refers to a person taking external cues about appearance ideals and standards of physical beauty and making them their own internal views, changing their standards to match the external view. This may be thought of as a person viewing themselves from a third person, or outsider's perspective. When one views unrealistic standards and internalizes them, their own standards of how they should appear can become impossible to obtain. Evidence shows that internalization of cultural appearance ideals is related to an increased risk of eating pathology and body dissatisfaction in both Western (Keery, van den Berg, & Thompson, 2004; Thompson et al., 1999) and Eastern cultures (Yamamiya, Shroff, & Thompson, 2008). For the purposes of the current study, the tendency to internalize cultural appearance ideals will be examined as a potential moderator of the relationship between media exposure and body image disturbance.

Another mechanism of action is social appearance comparison, which provides an explanation for the apparent link between viewing mass media and experiencing body image and eating disturbance. Past research revealed that reading fashion magazines does indeed lead to social comparison, especially among girls (Martin & Kennedy, 1993) and young women (Thompson et al., 1999). In fact, social appearance comparison appears to be a mediating factor linking several sociocultural influences with body image disturbance (Heinberg & Thompson, 1995; Irving, 1990; Richins, 1991). This comparison occurs when the girl or woman compares her own physical appearance with that of the models depicted, which frequently leads to body dissatisfaction and disordered eating. Research has found a great deal of support for the important role of social appearance comparison in linking sociocultural influences to eating and body image

disturbance (Herbozo & Thompson, 2010; Tiggemann & Slater, 2003; van den Berg & Thompson, 2007). Social appearance comparison also appears to play a role in the link between appearance related teasing and negative outcomes (Thompson, Coover, & Storer, 1999). Tiggemann and McGill (2004) found that state appearance comparison was a mediator between exposure to magazine images depicting the thin ideal and body dissatisfaction among college women. These results suggest that social appearance comparison, especially during exposure, is an important mediator linking sociocultural influences and negative outcomes. For the purposes of the current study, social appearance comparison was examined as a trait measure for descriptive purposes and as a state measure as a possible mediator of the relationship between media exposure and body image disturbance.

Another explanation for how media influences eating and body image is that media influences people by providing characters who are examples and role models that practice extreme dieting, excessive exercise, and purging (Levine & Smolak, 1998). This goes beyond simply portraying people who conform to the unrealistic cultural appearance ideal, but actually shows viewers how such an appearance may be obtained, by engaging in behaviors that contribute to eating and body image pathology.

### *Objectification*

Beyond the mechanisms of action linking mass media exposure and negative eating and body image outcomes, objectification theory (Fredrickson & Roberts, 1997) provides a theoretical framework for understanding how this phenomenon actually occurs (Calogero, Tantleff-Dunn, & Thompson, 2011). Objectification theory has become a widely studied and empirically supported theory. It is based on the ideas of sexual

objectification (Bartky, 1990), an interpersonal phenomenon that occurs when a person is seen or treated as a body or collection of body parts for use or consumption by others. This occurs frequently and chronically in western cultures and can occur in many ways including gaze, visual inspection, sexualized evaluation, commentary, and even sexual violence. Sexual objectification is based on cultural appearance ideals and occurs anytime a person's body or appearance is viewed or evaluated separately from their person. As this occurs over time, a person may begin to take these views and internalize them, viewing themselves as others in their culture see them, through a cultural lens. When someone views herself or himself from the 3rd person perspective rather than the 1st person perspective, it may cause them to evaluate themselves in the same way that they are evaluated by some members of their culture. This internalization of cultural appearance ideals leads the person to objectify themselves, a concept known as self-objectification. Self-objectification is believed to be related to a several negative psychological consequences such as appearance anxiety, body dissatisfaction, low self-esteem, body shame, eating disorders, depression, and sexual dysfunction (Calogero, Tantleff-Dunn, & Thompson, 2011). Objectification theory, proposed by Fredrickson and Roberts, provides a hypothesized formal structure to the relationships among these constructs. Objectification theory states that when a person exists in a culture that objectifies them, they will internalize this treatment leading to self-objectification and other negative consequences.

In order to understand how the phenomenon of objectification occurs in reality, it must be studied empirically. According to objectification theory (Fredrickson & Roberts, 1997), the process of objectification begins when a person exists in a culture that sexually

objectifies people. Sexual objectification, sometimes referred to as interpersonal sexual objectification (Kozee, Tylka, Augustus-Horvath, & Denchik, 2006) or just interpersonal objectification, refers to the actual experiences related to living in a culture that sexually objectifies people. For the purposes of empirical research, it has been measured in multiple ways but typically has been operationalized as the number and frequency of experiences of sexual objectification that a person encounters (Hill & Fischer, 2008; Klonoff & Landrine, 1995). Examples of such events include uninvited leering, staring, catcalling, sexual harassment, and other events in which a person is judged solely on their appearance, as an object.

Objectification theory posits that existing in a culture in which sexually objectifying events occur causes a person to engage in self-objectification. Past research has operationalized self-objectification primarily in two ways (Moradi & Huang, 2008). The first way is as a state variable which allows researchers to experimentally manipulate levels of self-objectification by exposing participants to stimuli which cue thoughts about physical appearance. After exposure to these stimuli, researchers can measure levels of self-objectification, frequently done using a sentence completion task (Fredrickson et al., 1998). This operationalization of self-objectification implies variation over time depending on outside stimuli and internal mood states. The second way it has been operationalized is as a trait variable which allows researchers to assess the self-reported levels of self-objectification or body surveillance that a person experiences. This is typically done by asking participants to fill out questionnaires that measure self-surveillance, body shame, feelings of responsibility for appearance (McKinley & Hyde,

1996), and the self-reported relative importance of appearance-based and competence-based attributes (Noll & Fredrickson, 1998).

Using these definitions, researchers have examined the roles of sexual objectification and self-objectification in predicting body image-related outcomes for both women and men. Before discussing specific outcomes, it should be noted that there are some important considerations when examining these variables among men and women. Although both women and men experience sexual and self-objectification, women do so at a higher rate in western cultures (Aubrey, 2007; Hebl et al., 2004; McKinley, 1998). Also, women and men are prompted to self-objectify by different stimuli because of differences in underlying cultural appearance ideals (Morry & Staska, 2001). Finally, women's lived experiences of sexual objectification, such as being whistled at on the street, are very different from men's (Fredrickson & Roberts, 1997). The majority of research to date has examined objectification among women. This is partially due to the original theory intending to explain the phenomena related to women living in a culture that sexually objectifies them. It is also due to research finding that women are at significantly higher risk of lived experiences of being objectified, self-objectification, and negative psychological outcomes of objectification (Calogero, Tantleff-Dunn, & Thompson, 2011).

### *Objectification and Body Image*

Many studies, using various methodologies, have found links between objectification and issues of body image. One of the most commonly studied outcomes is body shame which occurs when a person compares themselves to a cultural ideal, determines that they do not meet the ideal, and has the potential for social exposure

(Fredrickson & Roberts, 1997). Using experimental designs, several studies have found a relationship between increased state self-objectification and body shame (Calogero, 2004; Fredrickson et al., 1998; Hebl et al., 2004; Quinn, Kallen, & Cathey, 2006; Roberts & Gettman, 2004). Body shame has been linked with a number of negative consequences such as inclination to change body weight or undergo cosmetic surgery (Forbes, Jobe, & Revak, 2006; Henderson-King & Henderson-King, 2005), body surveillance (Buchanan, Fischer, Tokar, & Yoder, 2008), and body esteem which can be conceptualized as self-esteem relating only to the body and appearance (McKinley, 2006a). Researchers have also examined the relationship between lived interpersonal sexual objectification experiences and body shame, finding that body shame is predicted by pressure to be thin (Tylka & Hill, 2004), peer sexual harassment among adolescents (Lindberg, Hyde, & McKinley, 2007), weight criticism (Befort et al., 2001), and exposure to sexually objectifying media (Aubrey, 2007). Overall, research over the past decade has shown that body shame is one of the key components to understanding the influences of sexual and self-objectification. Another commonly studied body-image related outcome of objectification is appearance anxiety. State self-objectification heightened through sentence priming was found to be related to appearance anxiety (Roberts & Gettman, 2004). The same result appeared when state self-objectification was primed by making female participants believe they were going to interact with a male stranger (Calogero, 2004). Appearance anxiety has also been shown to be related to eating disorder symptomatology (Tiggemann & Kuring, 2004; Tiggemann & Lynch, 2001). It has been proposed that appearance anxiety may act as a mediator between self-objectification and outcomes such as disordered eating, but these studies have had mixed results (Tiggemann

& Slater, 2001). Research has also found a relationship between lived sexually objectifying experiences and appearance anxiety (Aubrey, 2007).

According to objectification theory (Fredrickson & Roberts, 1997), one of the originally proposed outcomes of self-objectification was eating pathology. Accordingly, researchers have examined the relationships between objectification and eating. One of the most commonly used experimental designs is the 'swimsuit design', in which participants are randomly assigned to two groups. The experimental group is primed to engage in self objectification by trying on a swim suit in front of a full length mirror while the control group tries on a sweater (Fredrickson et al., 1998). Results using this design have been mixed regarding eating behavior. In the original study, Fredrickson et al. found that those in the swimsuit condition restricted their eating, but in a replication Hebl, King, and Lin (2004) found no effect for eating behaviors. More mixed findings came when Calogero (2004) found that priming self objectification did not predict eating restraint. However, some studies using correlational designs have found a significant relationship between self-objectification and eating disorder symptomatology (Burney & Irwin, 2000; Prichard & Tiggemann, 2005). Lived sexual objectification experiences also appear to be related to disordered eating, although this relationship appears to be mediated by body shame (Tylka & Hill, 2004). Overall, results regarding the relationship between self-objectification and eating pathology have been mixed.

Objectification theory suggests that exposure to objectifying media may influence men's and women's attitudes towards women. Rudman and Borgida (1995) conducted an experiment in which men were randomly assigned to be primed with either sexist (against women) ads or control ads. The men then conducted a mock interview of a female

confederate. Men in the sexist prime and men with higher trait sexism sat closer to the confederate, displayed more dominance, and behaved in a more sexualized manner than did control participants. Related directly to the current investigation, men in the sexist prime also rated the female confederate interviewee as less competent. Further evidence for the relationship between men's appearance ideals for women and negative judgments of women came in a recent study by Swami and Tovee (2013). They found that men who preferred larger breasts were more likely to be benevolently sexist, to objectify women, and to be hostile towards women. The results of these studies, taken with the evidence for Objectification Theory, indicate that men's attitudes towards women with regard to their competence and worth can be influenced by appearance, objectification, and cultural appearance ideals.

#### *Summary and Limitations*

More than a decade of research has been conducted and it can be concluded that there is a great deal of support for both sexual objectification and self-objectification's role in predicting many body image-related outcomes. Researchers have used multiple methodologies to study these phenomena and have found support for the framework originally established by objectification theory (Fredrickson & Roberts, 1997). However, this area of research suffers from several important limitations that should be addressed in the future. For instance, the biggest limitation to this area of research is a lack of racial, ethnic, and cultural diversity among the populations studied. The vast majority of studies in this area have examined samples that were predominantly young, white, heterosexual women enrolled in colleges or universities (Moradi & Huang, 2008). Fredrickson and Roberts (1997) hypothesized that any woman with a reproductively mature body may be

subject to sexual and self-objectification. However, there may be important differences between races and ethnicities because of differences in underlying cultural appearance ideals. Some evidence for these differences exists. For example, Hebl, King, and Lin (2004) found that Hispanic women reported the highest levels of trait self-objectification when compared to African American, Caucasian, and Asian women, while African American women reported the lowest trait self-objectification of these groups. However, there was no difference between them for state self-objectification after trying on a swimsuit (instead of a sweater). As another example of racial/ethnic differences, Harrison and Fredrickson (2003) found that watching sports that focused on leanness, such as gymnastics or swimming, was related to increased self-objectification among white women, while watching sports that did not focus on leanness, such as basketball or golf, was related to increased self-objectification among non-white women. The researchers conclude that these results are due to differences in cultural appearance ideals. Unfortunately, there is very little research examining cultural, racial, and ethnic diversity in the context of objectification, but there is preliminary evidence that differences in cultural appearance ideals change how much women of various races experience self-objectification. The current study aimed to address these limitations by obtaining a racially and culturally diverse sample.

Another limitation to this area of research, and one this study partially addressed, is that research to date has done little to test possible causal paths leading from existing in a sexually objectifying culture to negative outcomes related to body image.

Objectification theory (Fredrickson & Roberts, 1997) proposed a formal framework which outlined a causal path leading from sexual objectification to self-objectification

which then led to negative outcomes. However, this model has undergone little empirical scrutiny. This is especially true of the relationship between sexual objectification and self-objectification. Fortunately, some research has begun to examine the paths proposed by objectification theory. Tylka and Hill (2004) used structural equation modeling techniques to test a model with paths leading from pressure to be thin (an operationalization of existing in an objectifying culture), to self-surveillance, and then to negative outcomes such as body shame and disordered eating. The primary advantage of this study with regard to objectification theory is that it tested a model based on the formal framework originally established by objectification theory, finding a great deal of support for the proposed paths and structure.

#### *Current Investigation*

While many past studies have established the relationship between mass media exposure and body image disturbance as well as finding important mechanisms of action explaining this relationship, there are many limitations to the field and unknowns yet to be investigated. The current study aimed to address several of these limitations. One such limitation that is beyond the scope of the current study is the study of media portrayals of male appearance ideals and objectification of men. Although the media perpetuates the male muscular ideal (Pope, Phillips, & Olivardia, 2000) and appears to objectify men, this study focuses solely on outcomes related to the portrayal of the female thin appearance ideal and objectification of women. Therefore, discussion from this point forward will only involve portrayals of women and girls.

The purpose of the current study was to use true experimental methodology to provide evidence for the possible causal pathways between exposure to images that objectify women and several negative outcomes such as body image disturbance and

negative perceptions of other women. In replication of past research, this study evaluated the participants' weight/size dissatisfaction as an outcome of exposure to objectifying stimuli. It also evaluated appearance ideal internalization as a moderator and state social appearance comparison as a mediator of this relationship. As previously discussed, little of the literature about objectification has examined moderators and mediators, which has led to some mixed findings (Calogero, Tantleff-Dunn, & Thompson, 2011). However, internalization and appearance comparison have strong empirical support for their role as a mediators and moderators within the areas of body image and eating disturbance (Herbozo & Thompson, 2010; Keery, van den Berg, & Thompson, 2004; Krawczyk, Menzel, Swami, & Thompson, 2011; Thompson et al., 1999; Tiggemann & Slater, 2003; van den Berg & Thompson, 2007; Yamamiya, Shroff, & Thompson, 2008). Therefore, a major goal of the current study was the examination of internalization as a moderator and state social appearance comparison as a mediator of the relationship between exposure to objectifying media and the outcome variables.

According to objectification theory (Fredrickson & Roberts, 1997), existing in a culture that sexually objectifies women leads to two types of negative outcomes. The first is experiencing interpersonal sexual objectification which includes events such as being whistled at, leered at, judged based only on appearance, and treated as a sexual object. The second is internalizing these views, leading to many negative individual outcomes such as body image and eating disturbance. Research in this area has focused on the individual negative outcomes that women experience after internalizing the outside, objectifying perspective. The current study was designed not only as an attempt at replication of previous findings in this area, but also as an evaluation of whether being

exposed to objectifying media causes men and women to view and judge women differently. It is important to note that objectification theory provides some expectation about how objectifying media will influence men's attitudes towards women (Fredrickson & Roberts, 1997; Calogero, Tantleff-Dunn, & Thompson, 2011). Specifically, men who are primed to objectify women may be more likely to value them only for appearance and sex appeal, therefore rating them as less intelligent or competent. It is also possible that men primed with portrayals of cultural appearance ideals and objectification will rate other women as less physically attractive. This phenomenon has been empirically studied. As previously discussed, Rudman and Borgida (1995) found that men who were primed with sexist ads (vs. control ads) treated a female mock interviewee differently than men who were not primed with sexist ads in that they were more likely to ask sexist questions, exhibit sexualized behavior, and most relevant to the current study, rate the woman as less competent. This study provided direct evidence that exposure to the sexist advertisements could adversely affect men's treatment of and perceived competence of women. The current study aimed to extend these results, examining this effect in a different paradigm. The current study also examined how media that objectify women influences women's judgments.

Providing evidence of how media that objectify women affects both men's and women's attitudes towards other women was a primary goal of this study. This goal was accomplished by asking the participants to rate several images of women appearing in non-objectifying advertisements. After exposure to either objectifying or control (non-objectifying) advertisements, the participants viewed women in non-objectifying images and rated them on competence-related variables (intelligence, competence, and

successfulness) and attractiveness-related variables (physical attractiveness and sexiness). Findings from this analysis provided important implications for the theorized causal pathways of objectification theory itself and for how labile the tendency to objectify women is among men and women. This study also examined internalization of appearance ideals as a moderator and state social appearance comparison as a mediator of this relationship.

### *Hypotheses*

1. It was hypothesized that females in the objectification condition would show a significant increase in body shape and size dissatisfaction from pre to post exposure when compared to the females in the control condition whose body dissatisfaction will not change. Men were not expected to change in either group from pre to post exposure.
2. It was hypothesized that trait appearance ideal internalization would moderate the relationship between objectifying media exposure and body image disturbance among women such that those who engage in more internalization would increase in body dissatisfaction after exposure to objectifying media while those lower in internalization would not.
3. It was hypothesized that state social appearance comparison would partially mediate the relationship between exposure to objectifying media and body image dissatisfaction among women.

### *Research Question*

Although there was insufficient evidence to offer specific hypotheses regarding how exposure to objectifying images would translate into men's and women's judgments

of images of non-objectified women post-exposure; the current investigation evaluated whether exposure to objectifying images of women influenced ratings of women's competence and attractiveness when compared to exposure to control images. The current study also evaluated the moderating role of trait internalization and the mediating role of appearance comparison in these analyses.

## CHAPTER 2:

### METHOD

#### *Participants*

A total of 472 participants, 335 female and 137 male, were recruited from the undergraduate participant pool at a large university in the southeastern United States. This sample size was based on the results of a power analysis, which indicated a minimum of 70 participants per cell in a two by two design are needed to detect an effect size between small and medium with a power of .80 (Cohen, 1992). For taking part in the study, all participants received extra credit to apply to their coursework. There were no limitations on who could participate in the study other than they were between the ages of 18 and 45, be able to give full informed consent, be able to view advertisements, and answer questions on a computer and paper.

The average age of the participants was 20.69 ( $M = 3.73$ ), with a range of 18 years to 50 years, and modal age of 19. 75.3% of participants were 21 years of age or younger. There were no significant age difference between males and females (mean difference = .09 years,  $p > .05$ ). With regard to the racial/ethnic makeup of the sample, 15.9% reported themselves to be African American, .2% Native American, 10.7% Asian American, 17.6% Hispanic, .2% Pacific Islander, 48.5% White, and 6.9% defined themselves as bi-racial or "other." Although the goal of the current study was not to

evaluate phenomenological differences among racial and ethnic groups, it is worth noting that significant racial differences did exist for the internalization of cultural appearance ideals, but not for any other dependent variables. Internalization difference across racial/ethnic groups such that African American participants reported significantly lower internalization than all other groups (all  $p$ -values  $< .05$ ). Also, the "other group," which was primarily composed of participants of middle eastern decent, reported the highest internalization score, significantly higher than both African American participants and Hispanic participants (both  $p$ -values  $< .05$ ). There were no significant differences between white, Asian American, and Hispanic participants (all  $p$ -values  $> .05$ ) When asked to report their sexual orientation, 98.7% of participants chose to answer. Of those, 94.6% reported they were heterosexual, 3.4% bisexual, and 1.9% reported they were gay or lesbian. With regard to romantic relationship status, 54.7% of the sample reported being single, 39.1% in a relationship (non-engaged or married), 3.0% engaged, 2.1% married, .4% divorced, and .6% reported their romantic relationship status as "other."

### *Materials*

Demographic variables and some general information about media exposure were assessed by using a demographics questionnaire (Appendix A) that obtained data about the participants' age, race/ethnicity, sexuality, romantic relationship status, and exposure to mass media. Participants were simply asked to report their age, race/ethnicity, and romantic relationship status. Participants were classified as either sexual minority or sexual majority (i.e. heterosexual) based on their responses to four questions regarding human sexuality. These questions assessed sexual attraction, behavior, fantasy, and orientation (identity). This classification system provides more information and is more

accurate than simply having participants either self-identify themselves as belonging to a specific sexual orientation category or judging their orientation based of behavior alone (Sell, Wells, & Wypij, 1995). It classifies people as sexual majority or sexual minority, those whose sexual identity, orientation, attractions, and/or behaviors differ from the majority of the surrounding society or culture (Ullerstam, 1966). This classification system has been successfully used to improve prevalence estimates of homosexuality (Bagley & Tremblay, 1998). It has also been used to classify individuals and estimate prevalence in the study of body image (Boroughs, Krawczyk, & Thompson, 2010). Participants' exposure to mass media was assessed via several questions asking them to estimate the total amount of time per week they spent viewing and interacting with various types of mass media including television, the internet, and periodicals. Participants also estimated how much time per week they spent viewing pornography and playing video games as these activities are quite likely to include a great deal of exposure to appearance ideals and objectifying stimuli.

### **Visual Analogue Scales**

The Visual Analog Scales (VASs; Heinberg & Thompson, 1995; Thompson, 2004; Appendix B) were used to assess state dissatisfaction with body size/weight, dissatisfaction with body shape, anger and anxiety. Using the VAS, participants were asked to indicate their response level by making a mark on a 100 mm line, anchored by “none” (left-most point) and “extreme” (right-most point). The distance of the mark from the left end of the line measured in millimeters indicates the level of distress (Thompson et al., 1999). The body dissatisfaction VASs have been found to have good convergent validity, correlating highly with the Eating Disorder Inventory-Body Dissatisfaction

subscale (e.g., Heinberg & Thompson, 1995). The VAS items in the current study were similar to those used by Tiggemann et al. (2013) and have been widely-used in body image research (Thompson, 2004). The VAS items measuring negative affect (anger and anxiety) were included to evaluate changes in negative mood states. These items have demonstrated adequate convergent validity with subscales of the Profile of Mood States (Heinberg & Thompson, 1995). The VASs in the current study also included several distracter items in order to mask the purpose of the instrument, including ratings of variables such as energy, disappointment in self, happiness, calmness, feelings of health, and irritability. The VASs are advantageous to use in this type of study because it is brief and because it can be administered multiple times within a short time period without participants remembering their previous responses (Thompson, 2004). This scale was given to participants before and after the experimental manipulation in order to obtain a pre and post measure of each variable.

The distance measured in millimeters, from the left-most point on the line to the participant's mark, was measured separately by five trained, undergraduate research assistants. These measurements produced scores between 0 and 100. In order to assess inter-rater reliability, all 5 research assistants completed the same 10 randomly selected participant packets. Inter-rater reliability was computed based on these data and was very high ( $r > .99$ ).

### **State Appearance Comparison Scale**

The State Appearance Comparison Scale (SACS; Herbozo & Thompson, 2010; Appendix C) was used to assess social appearance comparison induced by exposure to the experimental manipulation. Past research has found acceptable internal consistency

reliability, Cronbach's alpha = .76 (Herbozo & Thompson, 2010). This state measure was administered once, after the experimental manipulation. The measure was slightly modified so as to ask participants about appearance comparison to the people in the ads as well as other participants in the study. This was done to assess comparison to the ads, but allow the questions to be answered by the control group as well given that their ads contained no images of people.

### **Sociocultural Attitudes Towards Appearance Scale**

The SATAQ-3-Internalization-General subscale (SATAQ-3-I-G; Thompson et al., 2004; Appendix D) includes 9 items and uses a five-point Likert scale ranging from *definitely agree* to *definitely disagree*. It assesses the tendency to internalize cultural appearance ideals with items such as "I would like my body to look like the models who appear in magazines." It has been shown to have good internal consistency reliability with a high Cronbach's alpha (.96) (Thompson et al., 2004). The SATAQ-3-I-G, conceptualized as a trait measure, was completed before the participants were exposed to the experimental or control conditions. In the current sample, the internal consistency reliability was good with a Cronbach's alpha of .91.

### **Ratings of Women's Appearance and Personal Worth (Appendix E).**

Several important outcome variables in this study deal with the extent to which a participant perceives unknown 3<sup>rd</sup> party women to be physically attractive and competent. Participants view several photographs of women and men in various situations designed to look like advertisements for the university. The participants answered several questions about these images, many of which served purely as distracters. Participants rated the women on several variables including physical attractiveness, intelligence,

sexual promiscuity, success, competence, dominance, and submissiveness. They made these ratings on a visual analog scale by making a mark on a 100 mm line, with the left end of the line corresponding to "not at all" and the right end of the line corresponding to "extremely." This measure was designed to assess potential stereotypical attitudes that are commonly associated with the phenomenon of objectification (Fredrickson & Roberts, 1997). Two composite variables were created, one to measure perceived attractiveness and one to measure perceived competence. Participants rated 5 images of women in various settings, including professional, academic, medical, and recreational settings. These images were selected by a panel of experts in body image research and were chosen to portray diverse physical appearance, many levels of professionalism, and racial/ethnic diversity. The variable of perceived attractiveness was computed by averaging the ratings of the 5 women in the images for their "physical attractiveness" and "sexiness." This resulted in a 10-item measure with good internal consistency reliability (Cronbach's  $\alpha = .808$ ). The variable of perceived competence was computed by averaging the ratings of the 5 women in the images for how "intelligent," "competent," and "successful" they appear. This also resulted in a 15-item measure with good internal consistency reliability (Cronbach's  $\alpha = .871$ ). These two variables were then used as operationalizations of perceived intelligence and attractiveness in the primary analyses.

### **Distraction Task (Appendix F)**

A brief, 5-8 minute distraction task was administered following the completion of the trait measures and before the experimental stimuli exposure. For the distraction task, participants were asked to identify their top 10 vacation destinations and to write a brief description of their potential activities on these trips. This decreased the possibility of the

participants' completion of the trait measures influencing subsequent responding. Past research suggests that a brief distraction task such as this is sufficient to allow mood states to return to baseline (Herbozo & Thompson, 2010; Lyubomirsky & Nolen-Hoeksema, 1995).

### **Experimental Manipulation**

Prior to assigning the participants to experimental or control groups, the participants completed all trait measures (see description of measures). Following completion of the trait measures, participants engaged in a short distraction task designed to reduce the likelihood that the measurement of the trait body image variables influenced the experimental results. After the participants completed the distraction task, they were randomly assigned to groups. Assigning participants to either the experimental or control conditions was determined by a true random assignment process using a random number generator ([www.random.org](http://www.random.org); Haahr, 2011). Participants were randomly assigned to one of two groups; either they viewed advertisements that objectified women and depicted cultural appearance ideals or they viewed control advertisements that depicted no people or objects known to elicit thoughts of appearance, eating, or body image (see next section). Every participant completed the VAS scales twice, once pre and once post-exposure. Participants also completed the ratings of women's attractiveness and personal worth and the SACS post exposure.

### **Experimental Stimuli**

Both sets of advertisements consisted of six images selected by a panel of expert raters. These raters consisted of a professor, six doctoral students in clinical psychology studying body image, and 2 undergraduate research assistants. All have extensive

experience in the areas of body image and objectification. The advertisements comprising the experimental condition were selected based upon their accurate portrayal of both cultural appearance ideals and objectification. Raters provided feedback about a diverse set of images, rating how much the ad objectified women and how much it depicted female cultural appearance ideals. Raters were also given the opportunity to point out potential problems with any ad or extraneous variables that may be depicted. Six advertisements were selected that best provided a mix of objectification and depiction of cultural appearance ideals. Reasons for excluding ads included over-depiction of sexual violence, excessive nudity, or ambiguity of ad message. The selection procedure produced 6 advertisements. Five of the images portrayed a white/Caucasian woman while 1 portrayed a black/African American woman. Four of the advertisements depicted a woman alone, while two depicted a woman with one or more men.

The control advertisements were selected using a similar process. Rather than rate depiction of objectification of women and female cultural appearance ideals, raters were to ensure that the ad did not depict these phenomena. Care was also taken to ensure that the ads did not include objects that would remind participants of either appearance or objectification, such as food, clothing, mirrors, people, etc. Six images, thought to depict no appearance ideals, objectification, or related constructs, were selected for use as the control advertisements exposure.

### *Procedure*

Participants signed up for the study via the university's psychology department online research participant pool. To participate they attended one session held in a computer laboratory. Upon arrival, participants completed the informed consent process.

Since knowing the true purpose and hypotheses of the study could bias the results, participants were told that they were taking part in a study that examines the efficacy of various types of advertisements based on the participants' emotions and mood at the time of viewing. Deception was necessary at certain points throughout the study and the true nature of the study was fully disclosed during the debriefing. After informed consent was obtained, participants were seated in front of a computer and given log-in information. Data were collected in the computer laboratory setting via secure website, SurveyMonkey. The participants first completed all trait measurements. These questionnaires were administered before any exposure to experimental or control conditions in order to better assess the participants' trait body image. Once participants completed these measures, they completed a paper and pencil version of the distracter task, asking them to list and describe potential vacation destinations and trips. After the distracter task, participants were given either the experimental condition or the control condition task. This was determined by random assignment via random a number generator ([www.random.org](http://www.random.org); Haahr, 2011). This process of random assignment was true random assignment of individuals where all participants had an equal chance of being in either condition. Once assigned to groups, the participants completed the pre-exposure VAS. They were then shown either the advertisements that objectify women or the control advertisements. As part of the deception to hide the true nature of the study, when exposed to the ads participants were told "To get you thinking about advertisements, we would like you to view and briefly describe 6 ads." The 6 ads appeared on the screen for 30 seconds each for a total of 3 minutes of ad exposure. To ensure participants attended to the ads, they were asked to write down a few words that described the advertisements

during the exposure. Next, the participants completed the post-exposure VAS, the SACS, and the ratings of women VAS questionnaire. For the ratings of women questionnaire they were given instructions, "You are about to view several potential future advertisements for the university. We are asking for your opinions about several aspects of the ads to determine which will be most effective." These instructions were part of the deception to hide the true purpose of the study. Upon completion of the entire study, participants were debriefed which included full disclosure as to the true purpose of the study.

Up to 10 participants attended each session. This limit of 10 was imposed in order to maximize data collection efficiency while ensuring that participants could not view the computer screens of others. Participants were situated in such a way that they were unable to see the computer screen of other participants.

As compensation for taking part in the study, participants received research participation credits. These are frequently used to give extra credit or fulfill a research requirement in psychology classes. No other compensation was given.

## CHAPTER 3: RESULTS

### *Preliminary Analyses*

Prior to conducting analyses, the data were cleaned. To handle missing data, scores for questionnaires were coded missing for any participant with more than 10% of data missing on a single questionnaire. A participant was excluded from any analysis for which they were missing a total questionnaire score. Participants missing more than 10% of their total data across all measures were excluded from all analyses. Any participant missing some data, but less than 10% for any individual measure, had the missing items replaced with an imputed mean based on that participant's scores on the non-missing items. For questionnaires with more than one scale (e.g. SATAQ), this procedure was done within scale rather than whole questionnaire. This procedure resulted in 9 participants being dropped from all analyses, leaving 463 participants.

To ensure participants were attending to questionnaire content, two items were randomly inserted into the series of questions. These items simply instructed participants to select a specific answer choice, for example, "Select the option '3'." The data from participants selecting an answer choice other than the one indicated were excluded from analyses. A total of 6 participants were removed via this procedure for random responding.

### *Experimental Manipulation, Group Equivalency, and Gender Differences*

In order to assess both the efficacy of the random assignment procedure and gender differences in age and media viewership, 2x2 ANOVA analyses were employed. Age did not differ across condition or gender, nor was there an interaction between condition and gender (all  $p$ -values  $> .05$ ). Media viewership, due to its potential as a proxy for amount of exposure to objectification and cultural appearance ideals, is an important consideration within the sample and between groups. Regarding media viewership, measured in hours per week, women and men did not differ in the amount of time they spent watching television, surfing the internet, or reading magazines or newspapers. However, men spent more time than women playing video games and viewing pornography. Women spent more time on Facebook and other social networking sites. Importantly, media viewership, through any medium, did not differ across experimental conditions, nor did condition assignment interact with gender, providing evidence that random assignment was effective.

**TABLE 1.** Media Viewership in Hours per Week by Gender

|                          | Female (N=324) | Male (N=134) | Total       |
|--------------------------|----------------|--------------|-------------|
| Television               | 8.5 (11.7)     | 8.7 (8.4)    | 8.6 (10.9)  |
| Surfing the Internet     | 15.0 (15.9)    | 16.1 (13.8)  | 15.3 (15.3) |
| Online Social Networking | 10.7 (10.6)*   | 8.4 (9.9)*   | 10.0 (10.4) |
| Magazines or Newspapers  | 1.8 (5.2)      | 2.0 (3.2)    | 1.9 (4.7)   |
| Pornography              | 0.1 (0.5)*     | 1.5 (2.5)*   | .5 (1.5)    |
| Video Games              | 0.6 (3.3)      | 6.0 (9.6)    | 2.2 (6.3)   |

\* =  $p < .05$

The experimental conditions and genders were also examined for differences in body mass index (BMI). The experimental ( $M = 23.96$ ,  $SD = 4.91$ ) and control ( $M = 24.37$ ,  $SD = 5.18$ ) conditions did not significantly differ for BMI ( $F(1,461) = .363$ ,  $p = .547$ ). Males ( $M = 25.26$ ,  $SD = 4.54$ ) had a significantly higher average BMI than females ( $M = 23.70$ ,  $SD = 5.16$ ) for BMI ( $F(1,461) = 9.00$ ,  $p = .003$ ). There was not a significant interaction between experimental condition and gender in predicting BMI ( $F(1,461) = .093$ ,  $p = .761$ )

In order for the analyses of the post-exposure variables to be meaningful, it was also vital that the experimental manipulation groups did not differ on relevant body-image-related variables including internalization, actual vs. desired body weight discrepancy, and pre-exposure body size dissatisfaction, weight dissatisfaction, anger, and anxiety. Gender differences were expected on many of these variables such that women exhibited more body image dissatisfaction. In order to test these expected patterns in the data, several 2x2 ANOVA analyses were employed with experimental condition and gender and the independent variables. Results indicated there were no significant differences pre-exposure between the experimental group and the control group for any of the variables, nor was there a condition by gender interaction (all  $p$ -values  $> .05$ ). There were expected gender differences such that women exhibited greater actual vs. desired body weight discrepancy, body size dissatisfaction, and internalization of cultural appearance ideals.

TABLE 2. Relevant Body Image Variables by Gender

|                                       | Female (N=324) | Male (N=134) | Total       |
|---------------------------------------|----------------|--------------|-------------|
| Actual vs. Ideal Weight Discrepancy** | 13.9 (19.7)*   | 5.22 (21.9)* | 11.4 (20.7) |
| SATAQ Internalization-Gen.            | 30.7 (10.7)*   | 27.2 (9.6)*  | 29.7 (10.5) |
| Body Size Dissatisfaction             | 37.5 (31.1)*   | 30.8 (30.2)* | 35.5 (31.0) |
| Body Shape Dissatisfaction            | 35.3 (30.5)    | 29.4 (29.2)  | 33.6 (30.2) |
| Anger                                 | 9.7 (15.6)     | 10.8 (17.6)  | 10.0 (16.2) |
| Anxiety                               | 26.4 (26.9)    | 22.4 (24.2)  | 25.2 (26.2) |

\* =  $p < .05$

\*\*weight in pounds; actual - ideal; positive values indicate desire to weigh less than actual

Interestingly, women did not exhibit greater body size dissatisfaction than men ( $p = .066$ ). As expected, women and men did not differ in pre-exposure anger or anxiety. Overall, the experimental and control group did not differ on relevant variables and expected patterns of results comparing genders were observed.

#### *Primary Analyses*

It was hypothesized that, among women but not men, exposure to objectifying stimuli would be related to significant increases in several negative outcomes: body shape dissatisfaction, body size dissatisfaction, anger, and anxiety. It was also hypothesized that appearance ideal internalization would moderate the relationship between exposure to objectifying media and body image disturbance, anger, and anxiety such that those who engage in more internalization will exhibit increased negative outcomes.

In order to test these hypotheses, a multiple simultaneous regression was used with gender, experimental condition, a gender by experimental condition interaction, internalization, an interaction between internalization and experimental condition, and an

interaction term between internalization and gender as the predictor variables. The analysis was to be performed four times, once for each of the four outcome variables. However, examination of the correlation coefficients among these dependent variables revealed that body size dissatisfaction and body shape dissatisfaction were correlated more highly than expected ( $r = .883$ ).

**Table 3.** Pearson Correlation Coefficients among the DVs: Post Exposure Body Size Dissatisfaction, Body Shape Dissatisfaction, Anger, And Anxiety

|                | 1     | 2     | 3     | 4 |
|----------------|-------|-------|-------|---|
| 1. Size Diss.  | -     | -     | -     | - |
| 2. Shape Diss. | .883* | -     | -     | - |
| 3. Anger       | .272* | .302* | -     | - |
| 4. Anxiety     | .244* | .245* | .383* | - |

\* =  $p < .05$

Therefore, the two variables were combined to form one variable conceptualized as overall dissatisfaction with body size or shape.

In conducting the multiple regression analysis, adjusted  $R^2$  was used to account for the number of predictors. Also, the coding of dichotomous variables should be noted for the sake of interpretation. The experimental condition was coded a positive value (1) while the control condition was coded zero (0). Gender was coded such that females were assigned a positive value (1) and males zero (0). The interactions involving internalization were computed using a Z-score for internalization, gender coded as female = .5, male = -.5, and condition coded as experimental = .5, control = -.5. This maintains all variance in internalization across both groups as well as providing a 1 unit (.5 - -.5 =

1) difference between group to aid interpretation. The gender by condition interaction was computed using the standard 0,1 coding and multiplication procedure. To aid interpretation, full descriptive statistics for experimental condition and gender are provided.

Table 4. Means (SDs) of Post-Exposure Body Size/Shape Dissatisfaction (0-100 Scale) by Group

|        | Objectifying | Control     | Total       |
|--------|--------------|-------------|-------------|
| Female | 39.5 (30.23) | 28.1 (27.4) | 34.3 (29.5) |
| Male   | 26.8 (26.0)  | 24.4 (27.7) | 25.6 (26.8) |
| Total  | 36.0 (29.6)  | 27.0 (27.5) | 31.8 (29.0) |

Table 5. Means (SDs) of Post-Exposure Anger (0-100 scale) by Group

|        | Objectifying | Control    | Total       |
|--------|--------------|------------|-------------|
| Female | 24.0 (25.9)  | 8.6 (12.8) | 16.9 (22.2) |
| Male   | 15.3 (21.9)  | 8.1 (11.3) | 11.8 (17.8) |
| Total  | 21.5 (25.1)  | 8.4 (12.2) | 15.4 (21.1) |

Table 6. Means (SDs) of Post-Exposure Anxiety (0-100 scale) by Group

|        | Objectifying | Control     | Total       |
|--------|--------------|-------------|-------------|
| Female | 24.0 (25.5)  | 18.1 (23.0) | 21.3 (24.5) |
| Male   | 19.8 (24.6)  | 13.6 (16.2) | 16.8 (21.1) |
| Total  | 22.9 (25.6)  | 16.8 (21.3) | 20.0 (23.7) |

The model including the predictor variables, experimental condition, gender, condition X gender interaction, internalization, internalization X condition interaction, and internalization X gender interaction, controlling for pre-exposure body size/shape dissatisfaction, significantly predicted body size/shape dissatisfaction ( $R^2 = .794$ ,  $F(7,446) = 250.16$ ,  $p < .001$ ). Examination of the individual contribution of each predictor revealed that internalization significantly predicted body size/shape dissatisfaction. However, there was a significant internalization by experimental condition interaction such that those with higher internalization who were exposed to objectifying media endorsed especially high body size/shape dissatisfaction when compared to controls or those with low internalization scores in the experimental condition. There were no significant differences between male and female participants in the pattern of results, although the gender by condition interaction approached significance ( $p = .065$ ).

**Table 7.** Regression of Body Size/Shape Dissatisfaction on Predictor Variables Controlling for Pre-Exposure Body Size/Shape Dissatisfaction

|                    | <i>B</i> | <i>SE B</i> | $\beta$ | <i>p</i> |
|--------------------|----------|-------------|---------|----------|
| Exp. Cond.         | .117     | .078        | .060    | .136     |
| Gender             | .017     | .068        | .008    | .797     |
| Internalization    | .054     | .026        | .056    | .037     |
| Gender X Condition | .172     | .093        | .086    | .065     |
| Int. X Gender      | .058     | .049        | .029    | .242     |
| Int. X Condition   | .098     | .042        | .050    | .021     |

*Notes:* Adjusted  $R^2 = .794$ ,  $p < .001$

The model was applied to the dependent variable anger, controlling for pre-exposure anger. Results revealed that the predictor variables significantly predicted post-exposure anger ( $R^2 = .293$ ,  $F(7,446) = 27.81$ ,  $p < .001$ ; Table 9). Examination of the individual predictor variables revealed that the gender by condition interaction was significant such that exposure to objectifying advertisements increased anger among women, but not men.

Table 8. Regression of Anger on Predictor Variables Controlling for Pre-Exposure Anger

|                    | <i>B</i> | <i>SE B</i> | $\beta$ | <i>p</i> |
|--------------------|----------|-------------|---------|----------|
| Exp. Cond.         | .266     | .149        | .134    | .074     |
| Gender             | .071     | .128        | .032    | .581     |
| Internalization    | -.023    | .047        | -.023   | .630     |
| Gender X Condition | .438     | .177        | .215    | .013     |
| Int. X Gender      | .123     | .093        | .061    | .187     |
| Int. X Condition   | -.034    | .081        | -.017   | .676     |

*Notes:* Adjusted  $R^2 = .293$ ,  $p < .001$

Finally, the prediction model was applied to the dependent variable anxiety, controlling for pre-exposure anxiety. Together, the predictor variables accounted for a significant amount of variance in post-exposure anxiety ( $R^2 = .662$ ,  $F(7,446) = 124.74$ ,  $p < .001$ ; Table 10). Examining the individual contribution of each variable revealed that only experimental condition significantly predicted anxiety while all other predictors did not. Those exposed to objectifying advertisements exhibited increased anxiety regardless of gender or internalization of cultural appearance ideals.

Table 9. Regression of anxiety on predictor variables controlling for pre-exposure anxiety

|                    | <i>B</i> | <i>SE B</i> | $\beta$ | <i>p</i> |
|--------------------|----------|-------------|---------|----------|
| Exp. Cond.         | .214     | .105        | .106    | .042     |
| Gender             | .026     | .090        | .012    | .773     |
| Internalization    | -.014    | .033        | -.014   | .662     |
| Gender X Condition | .092     | .124        | .044    | .462     |
| Int. X Gender      | .096     | .066        | .047    | .147     |
| Int. X Condition   | -.063    | .057        | -.031   | .266     |

*Notes:* Adjusted  $R^2 = .657$ ,  $p < .001$

It was also hypothesized that exposure to media that objectify women would influence participant's judgments of women when they were presented with a seemingly unrelated task asking their opinions of several advertisements. Imbedded among numerous other questions, participants rated women on several attributes including intelligence, competence, successfulness, physical attractiveness, and sexiness. Intelligence, competence, and successfulness were combined to create a composite "competence" variable while physical attractiveness and sexiness were combined to create a composite "attractiveness" variable. These composite variables were then used as the outcome variable for the prediction model including experimental condition, gender, gender by condition interaction, internalization of cultural appearance ideals, and an internalization by experimental condition interaction.

This model was applied to the prediction of perceived competence of women in non-objectifying images. The model did not significantly predict perceived competence ( $R^2 = .011$ ,  $F(6,447) = 1.84$ ,  $p = .091$ ), nor did it significantly predict perceived attractiveness ( $R^2 = -.008$ ,  $F(6,447) = .419$ ,  $p = .866$ ). These results did not support the

hypotheses. Given the null results, the dependent variables were examined using a simple 2x2 ANOVA with experimental condition and gender as the independent variables in order to test for simple group differences. Perceived attractiveness did not differ across experimental condition ( $F = .025, p = .875$ ), nor across gender ( $F = .232, p = .630$ ). The condition by gender interaction was also not significant ( $F = .087, p = .768$ ). These results indicated that the experimental manipulation had no influence on perceived attractiveness of women. Perceived competence did differ significantly across gender ( $F = 6.735, p = .010$ ) with women giving competence ratings .25 standard deviations higher than men, a small effect size. Perceived competence was not influenced by the experimental manipulation ( $F = .011, p = .916$ ). The gender by condition interaction was also not significant ( $F = .674, p = .412$ ). These results indicated that women tend to rate other women's competence higher than men do, but that the experimental manipulation did not affect perceived competence.

### *Mediation*

It was hypothesized that, among women, state appearance comparison (the amount that a participant compares her appearance to that of the women around her, including those portrayed in the experimental stimuli advertisements), would mediate the relationship between experimental condition and the dependent variables size/shape dissatisfaction, anger, and anxiety. To test this hypothesis, mediation analysis via bootstrapping (Hayes, 2013) was conducted. Contrary to the hypotheses, experimental condition did not significantly predict state appearance comparison score (a path = .154,  $p = .144$ ). Although state appearance comparison (b path = .4087,  $p < .001$ ) and experimental condition (c' path = .320,  $p = .001$ ) both predicted body size/shape

dissatisfaction, the insignificant path connecting experimental condition and state appearance comparison fails to meet criteria for mediation. This pattern of results was also found when predicting post-exposure anger (b path = .177,  $p = .002$ ,  $c'$  path = .700,  $p < .001$ ) and anxiety (b path = .112,  $p = .06$ ,  $c'$  path = .233,  $p = .04$ ). Interestingly, both experimental groups and genders reported engaging in social appearance comparison (thinking about appearance  $M = 4.38/7$ ; comparison overall appearance  $M = 2.29/7$ ; comparison of appearance of specific body parts =  $M = 2.09/7$ ). There were no significant differences between experimental conditions or genders, and there was no gender X condition interaction (all  $p$ -values  $> .05$ ). Overall, none of the mediation hypotheses were supported due to the failure of experimental condition to significantly predict state appearance comparison.

## CHAPTER 4:

### DISCUSSION

The purpose of the current study was to investigate the effects of media that objectify women and portray cultural appearance ideals. This study examined outcomes related to body image and psychological distress, including body shape/size dissatisfaction, anger, and anxiety. In addition, the current study sought to measure participants' perceptions of others, and how these variables might be influenced by media that objectify women. This was investigated by using a true experimental design so as to elucidate possible causal pathways linking exposure to media that objectify women and negative body-image-related outcomes. The current study sampled both women and men in order to answer questions regarding possible differential effects of objectifying media on both sexes. Overall, the goal of the current investigation was to use true experimental methodology to examine both inter- and intra-personal effects of media that objectify women.

Before discussing the results of the primary analyses, there are several important considerations regarding the characteristics of the current sample. With regard to drawing conclusions and generalizing the results of the study, the sample had several distinct advantages and disadvantages. The sample was quite large, especially for a true experiment, at 472 participants. This provided adequate statistical power and increased the likelihood of an accurate representation of the population of study. The sample was

diverse with regard to race and ethnicity. Although white participants were the largest racial or ethnic group, comprising almost 50% of the sample, African Americans, Asian Americans, and Hispanic participants all accounted for a significant portion. The sample was also diverse with regard to sexual orientation, with 5.4% of the sample reporting that they were part of a sexual minority. Finally, the sample was diverse with regard to romantic relationship status, including a significant number of participants who were single or in a committed relationship. Although diverse and representative in many ways, the current sample also had limitations. First, the sample was quite young, which was not unexpected given that college students were recruited for the study. Also, given that the sample was college students, they have higher education and likely higher socioeconomic status than the average person. This may limit the generalizability of the results given that there could be generational, educational, and economic differences in amount and type of media viewership. For example, younger participants may have different experiences of media that objectify women and portray cultural appearance ideals when compared with older participants. Overall, the sample was large and diverse with regard to race, ethnicity, and sexual orientation, but somewhat limited in age diversity.

Media viewership is a key consideration in the current study. The experimental stimuli and manipulation was designed to assess the effects of exposure to media that objectifies women. The media viewership among the current sample is likely a fair approximation of that of college students. With the ever-increasing scope and popularity of the internet and social media sites, the relative time spent viewing various types of media has changed in recent years. Interestingly, the most common form of media viewership in the current sample was surfing the internet with 15.3 hours per week, and

no significant difference between females and males. The next most common was viewing online social networking sites, which participants did approximately 10 hours per week, with females spending more time than males. Men and women viewed approximately the same amount of television, about 8.5 hours per week. The only other form of media which participants viewed for more than 5 hours per week was playing video games, which men did significantly more (6 hour per week) than women (<1 hour per week). The changing methods of viewership must be considered when attempting to understand the influence of media that objectifies women for many reasons. For example, television viewership is less common than internet viewership, which was not the case several years ago. Because television is uniformly broadcast, and often edited for content, it is quite likely that the internet portrays more frequent and severe cultural appearance ideals and objectification of women. This is especially possible due to the high availability of pornography on the internet, which was commonly viewed by male participants. However, when surfing the internet, the user has a great deal more control over the content. If images that objectify women are viewed, it is more likely (compared to television, where channels can be changed but all content cannot be chosen) that the participant sought them out. Regardless of type of media, method of viewing, or control of viewer, the media is a vital source of information about cultural appearance expectations and ideals (Thompson et al., 1999).

The first set of hypothesis tests in the current study were designed to elucidate the potential causal relationship between exposure to media that objectify women and negative outcomes such as body image dissatisfaction, anger, and anxiety. Body image dissatisfaction was measured by asking participants to rate their dissatisfaction with their

body size and their body shape, and then averaging these values. The two were averaged due to their very high correlation ( $r = .88$ ). Results revealed that the combination of exposure to objectifying ads, gender, internalization of cultural appearance ideals (referred to henceforth as "internalization"), and the interactions among these variables, significantly predicted body image dissatisfaction. Examining the predictors individually revealed that exposure to objectifying ads predicted body image dissatisfaction, but only for participants high in internalization. These findings are congruent with past research (Keery, van den Berg, & Thompson, 2004; Thompson and Stice, 2001; Thompson et al., 1999) providing further evidence that internalization plays a key role in the relationship between mass media and negative body image outcomes. The current study, given its experimental methodology, provided a valuable addition to the existing literature. Specifically, exposure to media that objectify women and portrays cultural appearance ideals appears to cause both women and men to experience body image dissatisfaction. However, the current evidence suggests that this only takes place if the person internalizes the portrayed cultural appearance ideals.

Interestingly, gender did not play a role in predicting body image dissatisfaction, suggesting that viewing media that objectify women causes both women and men to feel more dissatisfaction about their body size and shape. It must be noted that generally, objectification and portrayal of cultural appearance ideals are conceptualized as distinct constructs. The current set of experimental stimuli portrayed both. It is not possible within the current design to tease apart which (or both) phenomenon was responsible for the effect. This is true of all results of the current study. This issue is discussed further in the future directions section below.

The second potential outcome of exposure to objectifying media examined by this study was anger. The model including experimental condition, gender, internalization, and the interactions among these variables significantly predicted post-exposure anger. Results from the individual predictors reveal that the interaction between gender and experimental condition carries the variance in post-exposure anger. These results indicate that the objectifying ads caused women, but not men, to become more angry. Past research has shown that women become angry when exposed to an interaction between a man and woman in which the man is critical of the woman's appearance (Tantleff-Dunn & Thompson, 1998). Further evidence of anger's relationship to appearance portrayals and feedback came when Herbozo and Thompson (2010) found that women who were given ambiguous feedback regarding appearance became significantly more angry than women given ambiguous non-appearance-related feedback. The current study not only provided further evidence that women exposed to objectifying media tend to become angry, but also provided a direct test of this phenomenon among men. Current results indicate that men do not become angry when exposed to media that objectify women, while women do become angry. Examination of the qualitative feedback written by the participants while they viewed the objectifying ads may provided some insight into the gender differences. Many of the male participants wrote narratives describing the women in the ads as "sexy," "hot," and "great body," indicating physical attraction to the women. These comments were less common, although far from absent, in female participants' narrative. The female participants tended to use descriptors such as "upsetting," "sexist," and "demeaning" more than men. Combining the statistical analysis with the qualitative feedback indicates that women tend to become angry while men do not, mostly due to

women perceiving the objectifying ads as demeaning while men perceive them as attractive. Taken with the results of the previously discussed analysis, it appears the tendency to internalize cultural appearance ideals combined with exposure to objectifying does lead to body image dissatisfaction, but not anger. The relationship between anger and objectifying ads appears to be a simple gender difference. Portrayals of the objectification of women in ads tends to make women, but not men, angry.

The final individual outcome in the current study was anxiety. The full prediction model accounted for a significant amount of variance in post-exposure anxiety. Examination of the individual variables revealed that only experimental condition significantly predicted anxiety. This pattern of results indicates that regardless of gender or tendency to internalize cultural appearance ideals, exposure to ads that objectify women caused participants to become anxious. Past research has generally focused specifically on appearance anxiety (e.g. Calogero, 2004). The current study simply examined "anxiety," which is more general than definitions used by past studies. The current definition is open-ended, and leaves room for a great deal of interpretation by the participant. For example, a participant could endorse anxiety when feeling appearance anxiety, generalized anxiety, or any other form. The current approach is advantageous in that it captures a wider range of affective states, but disadvantageous in that it is less specific and descriptive. Combining the current investigations results with past research, it appears that media that objectify women cause both men and women to become anxious, although this anxiety may be of different types across genders. The current study, which measured anxiety in a non-specific way, provides valuable information, but

does not inform conclusions about the source and/or type of anxiety experienced by participants. Future research should address this limitation.

The second, and most novel, set of hypotheses involved the effects of media that objectify women on participants' judgments of women. Based on the concepts of sexual objectification (Bartky, 1990) and objectification theory (Fredrickson and Roberts, 1997), it was hypothesized that both men and women would judge other women to be less competent and physically attractive following exposure to ads that objectify women. Despite past evidence for similar effects (Rudman & Borgida, 1995), these hypotheses were not supported. There are several possible reasons for this null finding. First, perhaps attitudes about women's attractiveness and competence may be better understood as a trait variable instead of a state variable. If true, it is possible that men's ratings would not be so easily malleable so as to change with less than 5 minutes of exposure to objectifying ads. However, Rudman and Borgida's results provide evidence contrary to this. Second, perhaps the difference in method of exposure to women accounted for the difference in results. In Rudman's study, men interviewed a woman, a study confederate. In the current study, they simply rated several women in several images. Whatever the cause of the null results, it was unlikely a type-II error. The study was adequately powered (N=465) and the effect size was minimal (less than .03 SDs difference in perceived attractiveness and less than .06 SDs difference in perceived competence). Despite the null findings for experimental manipulation, gender was significantly related to competence ratings of women. Men rated women as less competent regardless of exposure to objectifying media. These findings indicate that the rating paradigm used in

the current study was effective, but that there is an overall gender difference in ratings of women's competence instead of an effect related to the experimental manipulation.

The third set of hypotheses posited that social appearance comparison would mediate the relationship between exposure to media that objectify women and negative outcomes such as body image disturbance, anger, and anxiety. Past research has shown that viewing such media leads girls and women to compare their appearance to that of others (Martin & Kennedy, 1993; Thompson et al. 1999). Evidence also suggests that appearance comparison is a mediating variable, linking sociocultural influences, body image disturbance and eating pathology (Heinberg & Thompson, 1995; Herbozo & Thompson, 2010; Irving, 1990; Richins, 1991; Tiggemann & Slater, 2003; van den Berg & Thompson, 2007). However, in the current study, the experimental group was no more likely to report having engaged in social appearance comparison with the models in the advertisements or other participants in the study. Although social appearance comparison did predict negative outcomes such as body image dissatisfaction, it failed to mediate the relationship between media exposure and negative outcomes. It appears that in the current paradigm, the experimental condition failed to prime participants to compare their appearance with that of others. It must also be noted, that the null results were likely not due to the lack of appearance comparison by either group, but rather that both control and experimental groups engaged in appearance comparison at moderate and equal levels. Data was collected individually, but participants completed the study in a room with between 2 and 9 other participants. It is possible that all participants engaged in social appearance comparison due to the social nature of the data collection environment.

The results of the current study provide further evidence for the utility of Objectification Theory (Fredrickson and Roberts, 1997) in understanding the effects of media that treats women as sexual objects. This theory is based largely on the concept of sexual objectification (Bartky, 1990). The objectifying ads used as the experimental stimuli were selected so as to portray the concepts involved in the objectification of women and cultural appearance ideals. The expert raters considered core facets of objectification such as sexual objectification, disembodiment, and literal objectification. Objectification theory guided the conceptualization of the current study design and analyses. The theory posits that exposure to cultural appearance ideals leads a person to view themselves through a cultural lens, to objectify themselves. Those who tend to internalize cultural appearance ideals are at increased risk for negative outcomes such as appearance anxiety, body dissatisfaction, low self-esteem, body shame, eating disorders, depression, and sexual dysfunction (Calogero, Tantleff-Dunn, & Thompson, 2011). The current study supported the conclusions of past research, finding that those high in internalization who are exposed to objectifying media exhibit increased body image dissatisfaction. The results of the current study also served to further elucidate the specific outcomes of exposure to objectifying media and self-objectification. Internalization moderated the relationship between media exposure and body image dissatisfaction but not anger or anxiety. This indicates that internalization of cultural appearance ideals and self-objectification likely play a larger role in appearance-related thoughts and mood states than in general distress. These results should not be understood as an indication that objectifying media are not related to the outcomes of anger and anxiety. Exposure to objectifying media did indeed lead to anger among women, and

anxiety among both men and women. However, internalization of cultural appearance ideals did not appear to play a role in the prediction of anger and anxiety. It only played a role for the outcome of body image dissatisfaction. Overall, the current results provide further evidence in support of Objectification Theory, and indicate that internalization plays a significant role in body image dissatisfaction, but not general in anger and anxiety.

Taken as a whole, the results of this study provide several valuable pieces of information regarding the effects of media that portray cultural appearance ideals and objectify women. First, there does appear to be a causal relationship between exposure to such media and the negative outcomes of body image dissatisfaction, anger, and anxiety. This is especially meaningful when one considers the relatively limited exposure to the experimental stimuli in contrast with the bombardment of cultural appearance ideals that most of us undergo on a daily basis. The ideals that women should appear thin with low body fat, while men should appear tall and heavily muscled also with low body fat, are pervasive in western society (Goodman, 1995; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999; Wertheim, Paxton, & Blaney, 2004). Western mass media frequently portrays cultural appearance ideals (Herbozo, Tantleff-Dunn, Gokee-Larose, & Thompson 2004; Levine & Murnen, 2009; Pope, Phillips, & Olivardia, 2000; Thompson et al., 1994). Results of the current study suggest that less than 5 minutes of exposure to media that objectify women cause both women and men to feel dissatisfied with their body shape/size and experience anxiety. Additionally, it makes women angry. This is especially meaningful when one considers the high level of media viewership in the

current sample (Table 1) and the recent increases in media's depiction of extreme cultural appearance ideals and models in states of undress.

When interpreting and generalizing the results of this study, careful consideration must be given to the sample's characteristics. The sample was composed entirely of students from a large, state university. Utilizing a college sample in the current study had several advantages and disadvantages. College students are inherently more educated and typically occupy a higher socioeconomic status (SES) than the general population average. Because of this advantage, they tend to be exposed to many types of media. A primary goal of the current study was to evaluate the effects of media that objectify women. College students were a good target sample because they are frequently exposed to various forms of media including television, periodicals, and online sources. However, when interpreting the results of the current study, caution must be taken when generalizing the results to lower SES or education populations. Similar caution must be taken related to age given the current sample's young average age.

### *Limitations*

Although the current study used true experimental methodology, there are some limitations to the generalizability of results. The current sample was composed entirely of college students. As previously discussed, this limits the ability of the results to be generalized to less educated, lower SES, and older populations. The current sample also had limitations with regard to its selection. All participants were recruited through psychology classes and the majority were psychology majors. They signed up through a website, attended in person, and received extra credit to apply to their classes as compensation. This limited the study to not only psychology majors, but those who were

motivated and able to attend the data collection appointment and earn extra credit.

Despite these limitations the sample was quite diverse with regard to race, ethnicity, sexual minority status, and relationship status. Especially relevant to the current research questions is that the participants consumed a wide variety of media.

With regard to the analytical model, internalization of cultural appearance ideals was measured (SATAQ-3; Thompson et al., 2004) and conceptualized as a trait rather than state variable. Internalization can be understood as either within the current paradigm. As a state variable, internalization can act as a mediator between a specific instance of exposure to media and potential negative outcomes. For example, a woman may view an image that portrays cultural appearance ideals. She may then internalize these views by thinking, “I should look like that.” This may, in turn, immediately lead to body image dissatisfaction. In this example, internalization is understood as a distinct act, performed at a specific moment in time. In contrast, internalization can be understood as a trait variable. The trait internalization can be thought of as the tendency to engage in the act of internalization. Those high in trait internalization (measured by the SATAQ-3), engage in this act more frequently. The trait conceptualization was used in the current study. This had a direct influence on the chosen statistical analyses. Because internalization was conceptualized and measured as a trait, it was treated as such in the analyses. Therefore, the statistical model tested for interaction effects between the tendency to internalize cultural appearance ideals and relevant study variables such as experimental condition and gender. This was partially done because of the difficulty of measuring internalization as a state variable. Simply asking a participant if they are internalizing cultural appearance ideals at the same time that it is happening could change

the phenomenon being observed. The existing measurement tools (SATAQ) have been shown to be reliable and valid when measuring internalization as a trait variable. To avoid biasing the effect, and to measure reliably, internalization was understood and treated as a trait variable in the current study. This leads to a limitation, the assumption that those high in trait internalization did internalize the message in the experimental exposure images. Although this assumption was almost certainly met on average, it could have introduced additional error. Research is needed to develop a reliable and valid instrument to measure internalization as a state variable.

Examination of the sample sizes of the experimental and control conditions reveals 247 participants in the experimental condition and 216 participants in the control condition.

Table 10. Number of Participants per Condition by Gender

|        | Objectifying | Control | Total   |
|--------|--------------|---------|---------|
| Female | n = 178      | n = 151 | n = 329 |
| Male   | n = 69       | n = 65  | n = 134 |
| Total  | n = 247      | n = 216 | N = 463 |

This was not due to participants having a greater chance of being randomly assigned to the experimental condition. Rather, it was due to a greater number of participants in the control condition either discontinuing participation in the study early, or having significant amounts of missing data. While both of these events were relatively rare, they did occur more frequently in the control condition. This could have occurred for a number of reasons, but most likely participants became bored more often in the control

condition. It is unlikely that participants were aware they were in the control condition. Participants provided written feedback regarding the ads. No participant indicated awareness that he or she was in a control condition. If indeed, participants were bored in the control condition, it is possible that a difference in psychological arousal between the conditions influenced the results. This limitation could be addressed by creating a series of control advertisements that are psychologically arousing, but that do not portray objectification of women or cultural appearance ideals.

The outcome variables in the current study were designed to cover a wide range of potential effects of media that objectify women. The individual outcomes, body shape/size dissatisfaction, anger, and anxiety, were measured with one or two items each using visual analog scales. Using few items allowed for a broad assessment of outcomes. However, fewer items measuring a construct tend to be less reliable. This lack of reliability could be addressed by using a larger, more reliable questionnaire to measure state constructs, such as the State-Trait Anxiety Inventory (Spielberger et al., 1983).

#### *Future Directions*

The current investigation naturally leads to several avenues of additional research, both to address limitations and to expand on findings. The first stems from the conceptualization of internalization of cultural appearance ideals as a trait variable. As previously discussed, internalization was treated as the tendency to internalize, as measured by the SATAQ (Thompson et al., 2004). However, measurement tools could be developed to measure internalization as a state variable. In the current line of research, especially using true experimental methodology, it is important to make a distinction between state and trait measurement and conceptualization. If internalization was

conceptualized as a state variable, and a psychometric tool developed, it would be possible to measure a subject's current, state internalization. In the current study, this would theoretically accomplish the goal of measuring how much a participant internalized the cultural appearance ideals in the ads in the experimental manipulation. Directly measuring the phenomenon would avoid the necessary assumption of the trait conceptualization, that those high in trait internalization actually engaged in more internalization during the experimental exposure. Although this is a fairly safe assumption, direct measurement would reduce error. It would also enable researchers to use internalization in full mediational models from experimental studies, further fleshing out cause and effect in the complex system.

Social appearance comparison was conceptualized and measured as a state variable (SACS; Herbozo & Thompson, 2010). This was done because the variable served as a mediator in the current model. The construct of interest was the amount which participants compared their appearance to the objectifying advertisements. Theoretically, exposure to such ads will lead to appearance comparison. However, the current study did not find this relationship, despite adequate power. This null finding has several possible explanations. A type-II error can never be fully ruled out, although with N of 465, it is not likely that a meaningful effect was missed. It is possible that appearance comparison in reality is not as malleable over short periods of time as the current conceptualization assumed. It is also possible that one exposure of a few minutes was not meaningful compared to the exposure of daily living. It is also possible that, unlike more common images of women who portray a thin and/or attractive ideal, these images contained rather blatant objectification, so perhaps women simply did not see these images as

relevant comparison targets. Whatever the reason for the null results, social appearance comparison may be better understood as a trait variable. Fortunately, a reliable and valid psychometric tool for this construct already exists in the PACS (Thomposon, Heinberg, & Tantleff, 1991). Future research should attempt to better understand the nature of social appearance comparison, how malleable it is over time, and how likely it is to change during exposure to appearance ideals.

The current study has implications for the effects of media that objectify women and portray cultural appearance ideals. While cultural appearance ideals are an integral part of the theorized process linking self-objectification and negative outcomes, the two constructs can be understood separately. Cultural appearance ideals are general conceptualized as a portrayed ideal of beauty/appearance put forth by a culture. While this is a vital part of objectification theory, specifically to the process of self-objectification, the literal treatment of women as objects does not necessarily involve appearance ideals. For example, in one of the experimental condition advertisements, a woman's face is replaced by a car. This clearly does not meet cultural appearance ideals, but does treat a woman literally as an object. Future research is needed to discern if these constructs are separable and distinct, or they are indeed best understood as part of a larger whole, the valuing of women only as sex objects.

Paradigms involving experimental methodology and exposure to media frequent suffer (as in the current study) from the drawback that participants are likely exposed to stimuli similar to the experimental exposure material frequently throughout the day, likely before the study takes place. This chronic viewing may create a long-standing pattern of exposure to constructs such as cultural appearance ideals and objectification. If

a person is constantly exposed to a stimulus, will they react the same way to it each time? The same way as someone not chronically exposed? This limitation could partially be addressed by measuring media viewership in detail, and then taking this into account in the theoretical and statistical models of the study. For example, media viewership could be conceptualized as a trait variable and analyzed as a moderator of the (hypothesized but not found) relationship between experimental condition and state social appearance comparison. Similarly, media viewership may influence many of the relationships studied in this and similar studies.

The current investigation focused on negative outcomes of media that objectify women. However, research need not only focus on negative outcomes and risk factors. Although objectifying media does appear to be causally related to body image disturbance, anger, and anxiety, the effect sizes were relatively small. Research is needed to identify the protective factors that prevent people from experiencing negative outcomes. Future work might explore the roles of social support, high self-esteem, or education about the unrealistic nature of appearance ideals as putative protective factors.

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