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"If only I could be thin like her, maybe I could be happy like her"; The self - implications of associating being thin and attractive with possible life outcomes presented by

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has been accepted towards fulfillment  
of the requirements for

Ph.D. degree in Psychology

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**“If only I could be thin like her, maybe I could be happy like her”:**

**The self-implications of associating being thin and attractive with possible life outcomes**

**By**

**Peggy P.K. Chin**

**AN ABSTRACT OF A DISSERTATION**

**Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of**

**DOCTOR OF PHILOSOPHY**

**Department of Psychology**

**2001**

**Professor Lawrence A. Messé**



## **ABSTRACT**

### **“IF ONLY I COULD BE THIN LIKE HER, MAYBE I COULD BE HAPPY LIKE HER”: THE SELF-IMPLICATIONS OF ASSOCIATING BEING THIN AND ATTRACTIVE WITH POSSIBLE LIFE OUTCOMES**

By

Peggy P.K. Chin

The current studies posit that women associate a thin-ideal female body type with positive life-success; and, it may be this association that, to some extent, drives feelings of negativity toward the self after such upward social comparisons. Study 1 revealed that women do, indeed, attribute more positive life success to thin-ideal female images than to heavier (but still attractive) female images. Study 2 showed that when women were exposed to a thin-ideal female image, they experienced more feelings of self-satisfaction and more optimism about their possible future life outcomes when the positive life-stereotypes were invalidated than when they were confirmed, after controlling for participants' body mass index (BMI). Study 3 examined the extent to which having their own weight measured and/or making upward social comparisons to thin-ideal females affects women's self-satisfaction; and, it also explored the degree to which two personality factors (associations between weight and lifestyle and internalization of thinness standards) influenced how women felt about themselves after exposure to appearance- and weight-related stimuli. The results indicated that social comparisons to thin-ideal females, rather than being weighed, drive negative feelings toward the self. In addition, neither of the two personality factors was shown to moderate the effects of social comparison on feelings of self-satisfaction. Implications of these three studies, as well as directions for future research, are discussed.

**This dissertation is dedicated to my newest family member, David Lee Evans**

## **ACKNOWLEDGMENTS**

A heartfelt thank-you to Larry Messé who provided me with much moral and academic support throughout the writing of this dissertation. Thank you also to my dissertation committee members, Norb Kerr, Shira Gabriel, and Chris Shafer for their help and guidance. I am grateful to Amani El-Alayli and Ernest Park for their wonderful friendship and their boundless capacity to hear me whine. Lastly, to David, my husband-to-be: Thank you for sharing this milestone with me.

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## **INTRODUCTION**

**“I’ve lost 100 pounds in 8 months...I feel like a totally different person. I just know that I’ll have a happier, healthier life now.”**

### **Testimonial for Slimfast Weight-Loss Products**

**American women often report being dissatisfied with their bodies, and with their weight in particular, especially after exposure to western media images that display a thin-ideal standard of beauty (e.g., Posavac, Posavac, & Posavac, 1998). Studies also indicate that while the ideal standard of beauty for females commonly portrayed in the media has become thinner than it had been in the past (Silverstein, Perdue, Peterson, & Kelly, 1986), the average body size of young adult North American females has increased (Spitzer, Henderson, & Zivian, 1999). These findings suggest that many modern-day American women may experience substantial discrepancies between their ideal and actual selves in terms of physical characteristics (Higgins, Klein, & Strauman, 1985).**

**Although body image research has demonstrated that women report self-dissatisfaction after exposure to thin-ideal female media images, the literature has not identified the specific properties of these images that promote such self-dissatisfaction after this type of upward social comparison. The current project posits that many women do wish to be thin and may experience self-dissatisfaction after seeing a thin-ideal media image; but, lack of thinness and beauty, per se, may not be the sole bases for**



experiencing negativity toward the self. Rather, it may be the conscious or non-conscious association between being thin (and therefore beautiful) and having a more fulfilling, more exciting, and more glamorous life (i.e., enjoying more positive life-success) that leads women to have more negative feelings toward the self after exposure to an image of a thin, physically attractive female. In this dissertation project, three studies were conducted to explore the extent to which women in American culture perceive (a) that thinness in attractive females is associated with more positive life-success than is corpulence (Study 1), and (b) that explicitly contradicting this positive life-success stereotype leads to less negative self-views among women after a social comparison with an ideal standard of beauty (Study 2). Finally, Study 3 examined the extent to which having their weight measured and/or engaging in upward social comparisons to thin-ideal females creates feelings of self-dissatisfaction among women. In addition, Study 3 also explored two personality factors that may contribute to feelings of self-dissatisfaction after such upward social comparisons.

### Physical Appearance and Body Image

Research has demonstrated that physical appearance is a salient cue for understanding others. For example, people often use external information (e.g., sex, age, and race) in their initial evaluation of others (Fiske & Neuberg, 1990). Physical attractiveness, specifically, may be an important cue for how people are evaluated, particularly women. As Fallon (1990) notes, both women and men typically give much more explicit consideration to the physical attractiveness of women than the physical attractiveness of men. Other research has indicated that not only do people evaluate women on their physical attractiveness, but women also evaluate themselves in the same

manner. For instance, self-perception of physical attractiveness was the most important predictor of overall self-evaluation in female, but not male, college and high school students (Jackson, Hodge, & Ingram, 1994). Moreover, women are more likely than men to equate a positive evaluation of their physical appearance with a positive evaluation of their self in general (Lerner, Orlos, & Knapp, 1976). Because physical appearance seems to have a fairly pervasive influence on women's self-evaluation, it is not surprising that women tend to be more concerned than men with eating behaviors and with body weight (Pliner, Chaiken, & Flett, 1990), and are more likely to self-objectify and feel badly about themselves as a result of their physical appearance (Frederickson, Roberts, Noll, Quinn, & Twenge, 1998).

In order to assess their level of attractiveness and to evaluate their own appearance, women may engage in social comparisons with others. According to Festinger's (1954) social comparison theory, people compare themselves to others in order to more accurately assess their own qualities, particularly when standards are subjective, as in the case of beauty. However, upward social comparisons can make one feel negatively about oneself at times (Major, Testa, & Bylsma, 1991). Consistent with this idea, upward social comparisons with highly attractive others should reduce positive feelings about the self. Indeed, several studies have demonstrated that females rate themselves lower in attractiveness after exposure to highly attractive same-sex models (Cash, Cash, & Butters, 1983; Thornton & Moore, 1993). Other studies indicate that women who view photographs of attractive same-sex others experience a reduction in their body-esteem (Grogan, Williams, & Connor, 1996) and social self-esteem, as well as an increase in their self-consciousness, and physique anxiety (Thornton & Maurice, 1997,

1999). In contrast, engaging in a downward social comparison with a less attractive other enhances self-perceptions of attractiveness (Cash, Cash, & Butters, 1983; Thornton & Moore, 1993).

A central factor in whether one may be considered physically attractive or not physically attractive is one's weight, or more precisely, one's weight to height ratio. In American society, there is a cultural trend toward an ideal of thinness for women (Garner, Garfinkel, Schwartz, & Thompson, 1980). In fact, women who do not fit the thinness ideal and who are considered overweight often suffer professional and social discrimination (Quinn & Crocker, 1998). Stereotypes about the overweight include beliefs that they are lazy and gluttonous, as well as mentally deficient (Allon, 1982). These stereotypes may lead women to be hyper-vigilant about their weight, and, thus, make such issues as their own body image, their food intake, and their eating habits more highly salient (Frederickson et al., 1998; Rodin, Silberstein, & Striegel-Moore, 1984). Cash and Henry (1995), for instance, found that nearly 50% of their sample of 803 adult American women reported negative evaluations of their physical appearance and a preoccupation with being or becoming overweight. The authors concluded that body image concerns are prevalent among women.

Although there may be several different ways that the thin-ideal standard of beauty can be communicated to women, one of the most powerful conduits of such information is likely to be the mass media, through which women may compare themselves to the ideal female images being portrayed. Research demonstrates that females report being significantly more depressed following appearance-related commercials featuring women who are exemplars of societal ideals of thinness and

attractiveness (e.g., models for beer commercials, cosmetics, weight loss supplements and others, than following non appearance-related commercials; Heinberg & Thompson, 1995). Furthermore, exposure to models from magazines that depict the thin-ideal standard of beauty produces stress, depression, guilt, shame, insecurity, and body dissatisfaction among female respondents (Stice & Shaw, 1994). Other research indicates that current female television stars are slimmer than their male counterparts, that female television stars are slimmer now than female television stars of the past, and that more advertisements and articles in magazines directed toward women are concerned with dieting and staying in shape than are advertisements and articles in magazine directed toward men (Silverstein et al., 1986).

Taken together, these studies suggest that the media encourage women to adhere quite rigidly to unrealistic thin-ideal standards of bodily attractiveness (Silverstein, Perdue, Peterson, & Kelly, 1986). Although this encouragement to strive to meet thin-ideal standards is not harmful in and of itself, body image research reveals that body dissatisfaction and subscription to thin-ideal standards of beauty directly predicts eating disordered symptomology (Harrison, 1997; Stice & Shaw, 1994; Stice, Schupak-Neuberg, Shaw, & Stein, 1994).

Why do women want to meet these thin-ideal standards to the extent that they may experience body dissatisfaction, depression, and even eating disordered behavior when they perceive themselves as failing to do so? Conventional wisdom would suggest that women compare themselves to and want to emulate the physique of a thin-ideal standard, which, in turn, affects their perceptions of their own bodies. However, this assumption may not be entirely correct.

It is possible that women may strive for the thin-ideal body type if they associate thinness with positive life success. And, it may be this life success that women strive to achieve via having a thin-ideal body. For example, A study by Harrison (1997) showed that there is a positive association between women's interpersonal attraction to thin female media personalities and a drive for thinness in themselves. In this study, female participants were exposed to thin, average-sized, and heavy female television stars and magazine models. Participants were then asked to report how much they a) liked the television character (model), b) felt similar to the television character (model), and c) wanted to be like the television character (model). Lastly, participants were asked to complete the Eating Attitudes Test (EAT), which provided a measure of disordered eating. The results revealed that the only significant predictor of eating disordered symptomology was participants' self-reported attraction to the thin media personalities (Harrison, 1997). This study suggests that thinness alone is not sufficient to motivate women to emulate female media personalities. Rather, it may be women's attraction to the personal characteristics that thin-ideal females ostensibly possess that motivates them to strive for these thin-ideal standards for their own bodies.

Thin media ideals may evoke physical-attractiveness stereotypes (e.g., "what is beautiful is good"), such that people tend to believe that thin, beautiful people possess more desirable personality traits (i.e., outgoing, popular, intelligent) than less attractive (e.g., heavier) people (Dion, Berscheid, & Walster, 1972; Hatfield & Sprecher, 1986). Researchers have noted that this "what is beautiful is good" stereotype is particularly strong for measures of social competence and interpersonal ease (Eagly, Ashmore, Makhijani, & Longo, 1991; Dion, 1986). For example, physically attractive people are

perceived to possess more positive social skills, more positive social adjustment, and a lack of social shyness or social anxiety in comparison to those who are less physically attractive (Adams, 1977; Lerner & Lerner, 1977). The acceptance of this beauty-is-good stereotype may then lead individuals to believe that, because of their greater social prowess, beautiful people also enjoy more exciting, more satisfied, and thus, more successful lives than less attractive others. Consequently, women may associate being thin and beautiful with life success in general and want to emulate the thin-ideal standard not only in terms of body shape, but also in terms of projected positive life-success. Conversely, women may associate being heavy-weighted (and therefore less attractive) with less life success. A study by Hebl and Heatherton (1998) showed that female participants rated heavier female models lower on attractiveness, intelligence, job success, relationship success, happiness, and popularity than average-built or thin women. Thus, women may want to adhere to thinness ideals because of these negative attitudes about heavier females, and also because women do not want to be negatively stereotyped by others as a result of their weight.

Women may have the expectation that if their own body matched the thin-ideal standard, then they too would reap the anticipated life benefits of being ideally attractive. However, if they do not feel that they measure up to the standard, then they may feel negative about themselves. That is, to the extent to which women compare their own life circumstances to the projected positive life-success associated with a thin-ideal image, women may experience self-dissatisfaction.

Alternatively, research also indicates that while people tend to perceive beautiful people as possessing positive characteristics (Dion et al., 1972; Hatfield & Sprecher,

1986), they also believe that beautiful people have a “dark side.” (Dermer & Thiel, 1975). For example, people tend to believe that beautiful others are also egotistical and self-centered (Cash & Janda, 1984). Moreover, a meta-analysis conducted by Eagly and her colleagues (1991) indicates that while people do hold attitudes that are generally positive toward attractive others – and, in particular believe that attractive others are socially competent - they do not believe that there are positive associations between being physically attractive and having a great concern for other people or for possessing integrity. Thus, people do tend to associate positive characteristics with attractive others; however, they are also inclined to perceive attractive others as having negative characteristics. This suggests that women can be induced to believe that the thin-ideal female does not necessarily have a positive life, and that challenging this positive life stereotype may then lead women to experience more self-satisfaction in the face of a social comparison to a thin-ideal female image.

One potential explanation for why women may feel dissatisfied or satisfied with themselves after engaging in comparisons with a thin-media ideal is because such standards may induce women to imagine an alternative world in which they could lead a very different life if their physical appearance could be altered. Thus, the possible selves that women generate for themselves may influence feelings about the current self.

### Imagining the Possibilities

The concept of possible selves is defined as the elements of one’s self-concept that represent a sense of what one might become, what one would like to become, and what one is afraid of becoming. In essence, possible selves represent an individual’s goals, motives, fears, and anxieties (Markus & Nurius, 1986). A study reported in

Markus and Nurius (1986), designed to explore people's possible selves, asked female and male college students to indicate whether a list of 150 possibilities for the self (previously judged to be one-third positive, one-third negative, and one-third neutral) had ever described them in the past, describes them currently, or if it could describe them in the future. Results showed that people do imagine possible selves and that these possible selves may not correspond to whom they report being currently, nor do their current selves inhibit the imagination of their possible selves. For example, a person with a D-average in their senior year of high school may still believe it possible that s/he will be accepted into Harvard University. Thus, people do seem to employ their imaginations in thinking about how their lives may turn out.

Research further indicates that possible selves can serve as a context for the evaluation of the current self (Cross & Markus, 1991; Markus & Nurius, 1986), and may be a motivator of future behavior (Ruvolo & Markus, 1992). Thus, a woman who imagines a thin, beautiful, possible self with an exciting, glamorous, and satisfied life may feel more negatively about her current self and strive to reduce the discrepancy between what she hopes to become and what she is currently (Higgins et al., 1985). As noted by Markus and Nurius (1986), one may experience negative affect resulting from conflicts or discrepancies within the self-concept, consistent with research on self-discrepancy theory (Higgins et al., 1985), in which the greater the discrepancy between one's actual and ideal selves, the more dissatisfaction, sadness, and disappointment one may feel.

Although possible selves are anchored within the self-concept, which is thought by some to be relatively stable (Swann, 1983, 1997), they are also only notions, albeit



vivid notions at times, of what an individual could be. As such, they may not be grounded in objective reality. Thus, possible selves may be susceptible to change, depending on the current environment, and may be sensitive to information that conveys new or inconsistent “data” about the self (Markus & Nurius, 1986). For example, a woman who is exposed to a photograph of an attractive female may feel less attractive herself, and view her future possible selves as being more negative than before seeing the photograph. Conversely, an individual who is exposed to a photograph of an unattractive, same-sex person may feel more attractive and view her future possible selves as being more positive than before seeing the photograph. Hence, how an individual feels about her possible life-outcomes may differ depending on the stimulus to which she is exposed and what she believes to be true about that stimulus person.

### Summary

Past research on women’s body image has found that women tend to feel dissatisfied with their own bodies after an upward social comparison to a thin-ideal other (Heinberg & Thompson, 1995; Thornton & Maurice, 1997). However, research findings suggest that it may be more than just an attractive body image, per se, that women value and wish to emulate. For example, the literature on the “what is beautiful is good” stereotype indicates that people have strong associations between beautiful others and their possession of social competence and ease in social situations (Dermer & Thiel, 1975; Dion, 1986; Eagly et al., 1991). Thus, people may want to be like beautiful (and thin) others in terms of their perceived social graces, which may, in turn, have consequences for success in life. Indeed, recent research indicates that women wish mostly to imitate those thin-ideal standards to whom they are interpersonally drawn

(Harrison, 1997). This research suggests that women do not wish to emulate just any thin-ideal, but rather, a thin-ideal whom they perceive as having personal characteristics that they value and find appealing. Taken together, these findings suggest that women may strive for thinness ideals because of associations in their minds between a certain (positive) lifestyle and being thin and beautiful. Hence, women may imagine a world of possibilities for themselves such that being thinner than they currently are may lead to a more positive lifestyle and possibly more life-satisfaction. The current studies sought to understand why women sometimes feel dissatisfied with themselves after engaging in social comparisons by exploring the possibility that women associate physical attractiveness – particularly the thin-ideal body type – with positive life success.

### **Study 1**

The purpose of this first study was to explore if women do, indeed, believe that thin, beautiful females have more positive life-success than heavier (but still attractive) females do. In addition, this study was conducted to identify the components that constitute a potential positive lifestyle that could be associated with a thin, attractive female physical appearance.

### **Method**

#### **Participants**

Participants were 62 undergraduate women from Michigan State University who participated in this study as a demonstration of scientific research in an introductory level social psychology class. Of the participants, 91.9% were European-American, 6.5% were African-American, and 1.6% were of other ethnic backgrounds. The mean age of the participants was 19.9 years old.

## Procedure

The cover story presented to participants was that the purpose of the study was to assess how accurate people are in predicting the lives of other people. This cover story was also employed by Dion and her colleagues (1972) in their seminal paper on the “what is beautiful is good” stereotype. Participants were told that they would be looking at photographs of different men and women, and that they should guess, to the best of their ability, what these people’s lives are like.

All participants first viewed a photograph of an average-looking man and were asked to list 5 words that would describe this person (Appendix A presents this stimulus material). In actuality, the photograph of the man was presented in order to reduce suspicions that this experiment was actually about female body image. Participants were then randomly assigned to view one of two photographs: a picture of a thin-ideal image, or one of a heavier, but still attractive female (pre-tested by another group of female undergraduates for weight and attractiveness; Appendix A also presents these two photographs). They were instructed to rate the image on 45 questions dealing with the target’s life-style probability on a scale from 1 (very unlikely to be true of her) to 9 (very likely to be true of her). Sample questions include, “This person dates frequently,” “This person leads a dull life,” and “This person is on welfare” (see Appendix A, which presents the complete instrument). Lastly, participants were asked to rate the overall attractiveness of the target on a scale ranging from 1 (very unattractive) to 9 (very attractive). Participants were thanked at the end of the session, which took place at the end of a regular class period in the course.

## Results and Discussion

### Overall Physical Attractiveness.

In order to ensure that participants found both thin and heavy target women to be above average in attractiveness, t-tests were conducted to compare their evaluations to the physical attractiveness scale's midpoint (5.0). Results showed that participants found both target women to be above average in attractiveness regardless of weight,  $t(28)=14.84, p<.001$  (for thin target) and  $t(32)=4.70, p<.001$  (for heavier target).

However, a one-way analysis of variance (ANOVA) yielded a main effect of weight on attractiveness,  $F(1, 61)=25.13, p<.001$ , reflecting more positive ratings of the thinner target than the heavier target ( $M=7.79, SD=1.01$  and  $M=6.18, SD=1.45$ , respectively).

### Life-Success.

(Table 1 presents the condition means and the standard deviations for all items in this study) An exploratory factor analysis (varimax rotation of factors with eigenvalues greater than 1) of the items included in the life-outcomes questionnaire was performed. The factor analysis produced two strong factors, which, after rotation, accounted for 20.3% and 20.0% of the variance in the ratings, respectively. The third factor only accounted for 7.89% of the variance in the ratings. Thus, it appears that two factors best model the variance in the ratings (see Appendix B for a table of the factor loadings). The first factor seemed to be represent "positive" life outcomes (e.g., drives a sports car, is admired, is wealthy, travels a lot). The second factor seemed to represent "negative" life outcomes (e.g., is depressed, feels like a failure, is unloved, has an abusive boyfriend). In order to further explore these factors, a composite positive life outcomes variable was computed by averaging the 14 items that loaded above  $|.5|$  on factor 1 and below  $|.4|$  on

factor 2. Similarly, a composite negative life outcomes variable was computed by averaging the 12 items that loaded above  $|.5|$  on factor 2 and below  $|.4|$  on factor 1.

One-way ANOVAs were then conducted in order to investigate whether the ratings of the composite positive life outcomes variable and the composite negative life outcomes variable would differ as a function of the weight of the photographed target (thin vs. heavy). Indeed, there was a significant effect for positive life outcomes,  $F(1, 81)=49.0$ ,  $p<.001$  and a significant effect for negative life outcomes,  $F(1,81)=3.92$ ,  $p=.051$ . Surprisingly, although the factor analysis indicated that the thin target female was rated as having more positive life outcomes than the heavy target female ( $M=6.89$ ,  $SD=.83$  and  $M=5.28$ ,  $SD=1.22$ , respectively), it also showed that the thin target female was rated as having more negative life outcomes than the heavy target female ( $M=3.74$ ,  $SD=1.20$  and  $M=3.24$ ,  $SD=1.10$ , respectively).

A multivariate ANOVA was then conducted to identify the items that differed depending on the weight of the target. As predicted, there was a main effect of weight,  $F(46, 15)=3.75$ ,  $p<.01$ . Following this test, the univariate ANOVAs were performed to determine whether responses differed depending on the presented stimulus type for each item (i.e., thin or heavy; see Table 1). As shown in Table 1, the thin target was rated as having a more appealing life-style in many respects, in contrast to the heavier target. For example, the thin, beautiful woman was thought to lead a more exciting, successful life than the heavier woman, whereas the heavier woman was believed more likely to be pitied by others and to live in a trailer.

The results of this study are consistent with research on the “what is beautiful is good” stereotype. Specifically, the thinner woman was rated more positively than the

heavier woman on items that were related to social competence and the successful outcomes of those skills (e.g., frequently dates, is admired by others, drives an expensive sports car). However, the thinner woman was also rated more negatively on items that were related to concern for others and integrity (e.g., has gotten into trouble with the law, lies frequently). As discussed by Eagly et al. (1991), the “what is beautiful is good” stereotype is strongest for social competence, is moderate for intellectual competence, psychological adjustment, and dominance, but does not seem to have consequences for items that are related to concern for others or integrity. In fact, other research has demonstrated that what is beautiful may also be self-centered and egocentric (Cash & Janda, 1984), and that there may be a “dark side” to such stereotypes (Dermer & Thiel, 1975). The results of this preliminary study further supports past research findings that there may be negative stereotypes associated with beauty as well as positive stereotypes.

It should also be noted that several of the items associated with interpersonal competence (e.g., is loved, has many friends, is liked by others) were not significantly different between the thin and heavy models in this study. One potential reason for these findings is that the heavy model was heavier in weight than the thinner model, but not unattractive. Thus, the “what is beautiful is good” stereotype may still apply to the heavier model in some social domains. These findings may then suggest that the differences that were found between thin and heavy target models were due specifically to weight, and not attractiveness.

In order to examine this issue more closely, a multivariate analysis of covariance (MANCOVA) was conducted to determine whether controlling for ratings of target’s attractiveness would eliminate the differences found between targets of different weight.

Results showed that the multivariate effect for weight remained significant,  $F(46, 14)=4.18, p<.01$ . These findings indicate that the differences found between the thin and heavy target models on the items were due specifically to weight, and not to accompanying attractiveness differences. Furthermore, after controlling for attractiveness ratings, several items that previously showed no differences by weight, became statistically significant (see Table 1).

In sum, women were generally inclined to believe that a thinner female leads a more appealing life than did a heavier female, regardless of attractiveness. However, the factor analysis indicated that the thinner female was also perceived as having more negative life outcomes (Factor 2 in Table 1) than the heavier female. These findings, although they may seem surprising, are consistent with past research that indicates that while people tend to believe that beautiful others possess positive characteristics, they also perceive beautiful people to have a “dark side” (Dermer & Thiel, 1975). Indeed, the current study indicates that being beautiful may also lead others to perceive the beautiful one as being depressed, or feeling unloved.

Nonetheless, the findings of this study did indicate that a thinner women was rated as having more positive life success than a heavier woman. This raises the possibility that women may activate these positive life-success stereotypes of thin women when making social comparisons. Moreover, the belief in this success stereotype may promote in women feelings of dissatisfaction with their own circumstances in the face of a comparison, rather than dissatisfaction with body image alone.

## **Study 2**

As shown in Study 1, women tend to believe that thinner, attractive women enjoy more life success than do heavier, attractive women (albeit with also potentially more negative life outcomes, as revealed with the factor analysis). Hence, it is possible that when women are exposed to thin-ideal female images in the media, these positive life-stereotypes are activated and affect women's views about themselves after engaging in an upward social comparison. The purpose of this second study was to examine the effects of women's positive life-stereotypes of thin-ideal females on self-perception.

Specifically, this study explored the possibility that when the positive life-stereotypes of thin-ideal females are explicitly challenged (either the positive stereotypes are negated or lifestyles are shown to be the opposite of expectations), women will tend to have more positive self-perceptions.

Conversely, if such positive life-stereotypes of thin-ideal females are supported, women will tend to have more negative self-perceptions. The confirmation of these hypotheses would suggest that it is more than just body dissatisfaction, per se, that women experience after exposure to media ideals. Rather, it is also the belief that women with ideal bodies also have ideal lives, and it is the ideal life that women strive to attain via having a more perfect body. However, because the notion of having a happy life and attaining a perfect body are so intimately intertwined for females, women may experience more self-dissatisfaction in general if they perceive that they do not measure up to an ideal standard of beauty.



## Method

### Participants

Participants were 181 women recruited from Michigan State University introductory level psychology classes in exchange for course-related credit. Of the participants, 77.9% were European-American, 13.3% were African-American, 5.5% were Asian-American, and the remaining 3.3% were from other ethnic backgrounds. The mean age of the participants was 19.5 years old and their mean body mass index (BMI) was 24.0 (with a normal range of BMI scores being between 18-25; Korbonsits, Trainer, Little, Edwards, Kopelman, Besser, Svec, & Grossman, 1997)

### Measures

Life outcomes. A modified version of the possible selves questionnaire (Markus & Nurius, 1986) was administered in order to assess participants' beliefs about their possible future life outcomes (Appendix C presents this instrument).

Participants were asked to indicate on a scale ranging from 1 (very unlikely to be true of me) to 9 (very likely to be true of me) how likely they believe they will experience a variety of life-circumstances in the future. Many of the items that appeared on the questionnaire were taken from the questionnaire used in Study 1.

Mood. General mood after exposure to stimulus materials was measured by asking participants to describe how "thinking about the target in the photograph makes you feel about yourself right now" (Appendix D presents this instrument). Participants were asked to make ten bipolar ratings based on 9-point scales ranging from -4 to +4 on the following adjectives: depressed-elated, stressed-relaxed, dissatisfied-satisfied, unhappy-happy, disappointed-relieved, insecure-secure, self-conscious-self-confident, guilty-innocent, ashamed-proud, and negative-positive.

State self-esteem. Possible momentary changes in self-esteem after exposure to stimulus materials was measured using the state self-esteem scale (SSES, Heatherton & Polivy, 1991; Appendix E presents this instrument). This scale is a 20-item questionnaire with three components: 1) appearance (6 items), 2) social (7 items), and 3) performance (7 items). The scale asks participants to reflect on how they feel about themselves “right now” on items such as, “I am pleased with my appearance right now” (appearance), “I feel self-conscious” (social), and “I feel confident about my abilities” (performance). State self-esteem is measured by asking participants to rate themselves on a scale ranging from 1 (not at all) to 5 (extremely) with some items being reverse scored. The internal consistency for this scale is  $\alpha = .92$  (Heatherton & Polivy, 1991).

Actual versus Ideal self. Self-discrepancy theory (Higgins et al., 1985) suggests that people who believe that their actual and ideal selves are discrepant will be more likely to experience lower self-esteem, greater dissatisfaction, and more depression than those who report less discrepancy between their actual and ideal selves. Self-discrepancy theory also posits that people who believe that their actual and ought self-states are discrepant should experience more fear, threat, and restlessness than those whose actual and ought selves are less discrepant (Higgins, 1987). Because this study was primarily interested in women’s discrepancies between their actual selves and their ideal hopes and wishes for themselves, rather than the discrepancies between women’s actual selves and their feelings of obligation and responsibility to the society, it only measured women’s actual and ideal discrepancies. Thus, a modified version of the selves questionnaire (Higgins et al., 1985) was administered to participants to evaluate how much their actual and ideal selves match (Appendix F presents this instrument).

Following the methodology that Chin and McConnell (2001) used to assess actual-ideal self discrepancy, participants listed 10 characteristics that they believe they actually possess and then rated the importance of having those qualities on a scale ranging from 1 (very unimportant) to 7 (very important). Following the actual selves questionnaire, participants were asked to list 10 characteristics that they wish they ideally possessed and rated the importance of possessing those qualities on a scale ranging from 1 (very unimportant) to 7 (very important). Participants were then asked to return to their ideal list and to rate themselves on how close they are to reaching their ideal self on a scale ranging from 1 (not close at all to being ideal) to 7 (very close to being ideal).

For each ideal attribute, the rating of its importance was multiplied by the rating of how far the participants were to attaining their ideal self, and the mean of these products was computed as the measure of mismatches between one's actual and ideal selves. Larger mismatch scores should indicate greater discrepancies on important characteristics and more self-dissatisfaction.

Lastly, the characteristics that participants listed on the selves questionnaire were coded for two dimensions, body or lifestyle. The coding of these results should indicate differences in the extent to which exposure to media images activated thoughts about one's body and one's life. These results should further clarify whether women are more concerned with their bodies, per se, or their lifestyle after exposure to thin-ideal media images.

Body attractiveness. The body esteem scale (BES; Franzoi & Shields, 1984) using the female dimension of sexual attractiveness and weight concern, was administered to participants in order for them to reflect on their own level of physical

attractiveness (Appendix G presents this instrument). Participants were asked to rate 18 of their body parts (e.g., nose, lips, thighs, hips, arms) on a scale ranging from 1 (have strong negative feelings) to 5 (have strong positive feelings). The internal consistency of this scale is  $\alpha=.78$  (Franzoi & Shields, 1984).

Overall attractiveness. Because the BES does not assess general physical attractiveness, an additional question was asked to obtain an overall attractiveness score for the participant (Appendix G presents this instrument). Participants rated their overall attractiveness on a scale ranging from 1 (very unattractive) to 9 (very attractive).

### Design and Procedure

This study employed a one-way, between-subjects factorial design with 5 target-information conditions (positive lifestyle, positive-negated lifestyle, unsuccessful lifestyle, no lifestyle information, or control).

Participants were told that this study was about the impact of the media on health. As such, they were told that they would look at a media image and would answer several questionnaires. Upon arriving at the laboratory, participants were greeted by a female experimenter who had them complete a consent form, and, for those in the experimental conditions, a questionnaire asking participants about their dietary habits (e.g., “How often do you eat fruits and vegetables?” “How often do you exercise?” “How often do you drink alcohol?”). In actuality, this measure was given to participants to activate participants’ thoughts about their weight and lifestyle. Following this, the experimenter weighed the participants in front of a mirror and measured their height in order to make their own physical appearance more highly salient to them.

Participants were then randomly assigned to view one of four photographs. They either saw one of two photographs of thin, attractive women (previously pilot-tested by female college students for perceptions of weight and attractiveness) in the experimental conditions, or one of two photographs of neutral stimulus related to health (two different pairs of running shoes) – in keeping with the cover story but should not activate participants' thoughts about their bodies - in the control condition. In the experimental conditions, participants were also randomly assigned to read one of three passages about the target's lifestyle, either a positive life-success passage:

We are interested in learning about your health and dietary habits because it is generally believed that people who look like the woman in the photograph will possess certain characteristics. In actuality, research has demonstrated a strong relationship between looking like the woman in the photograph and having a happy and fulfilled life. For example, a recent study with a national sample of 1,000 thin, average-weight, and heavier women showed that by far, the group with the most life-satisfaction was thin women. Thin women reported that people typically responded positively to them, and that they felt a great deal of love, admiration, and acceptance from those around them.

The researchers conducting this current study also contacted the woman in the photograph that you see before you and asked her about her life. She reported that she has a very successful career, enjoys an exciting life, and just got engaged to a handsome man who treats her very well. In short, this woman leads the "good life," just as the national survey reported above would suggest.

a positive-negated passage:

We are interested in learning about your health and dietary habits because it is generally believed that people who look like the woman in the photograph will possess certain characteristics. In actuality, research demonstrates no relationship between physical appearance and life satisfaction. For example, a recent study with a national sample of 1,000 thin, average-weight, and heavier women showed that the women did not differ on any dimensions of life-satisfaction. Thus, people who look like the person in the photograph do not enjoy more happiness than others, are not more successful than others, and do not benefit from any special advantages over others.

The researchers conducting this current study also contacted the woman in the photograph that you see before you and asked her about her life. She reported that she has her "ups and downs" just like everybody else, some people like her and some do not, and in general, her life is very similar to the life of an average person. In short, this woman's life is no different than the lives of most people, just as the national survey reported above would suggest.

or an unsuccessful life passage:

We are interested in learning about your health and dietary habits because it is generally believed that people who look like the woman in the photograph will possess certain characteristics. In actuality, research has demonstrated a strong relationship between looking like the woman in the photograph and having an unhappy and unfulfilled life. For example, a recent study with a national sample of 1,000 thin, average-weight, and heavier women showed that by far, the group with the least amount of life-satisfaction was thin women. Thin women reported that people typically responded negatively to them, and that they felt isolated, depressed and lonely.

The researchers conducting this current study also contacted the woman in the photograph that you see before you and asked her about her life. She reported that she has an abusive boyfriend, is battling a drinking problem, and is currently in trouble with the law. In short, this woman leads an unhappy life, just as the national survey reported above would suggest.

Participants who were assigned to the no-information condition were not given any stereotype relevant information about the target model. However, as ascertained in Study 1, thin-ideal females were typically perceived by others to enjoy positive life success. Also, participants who were assigned to the control condition were exposed to a photograph of running shoes, rather than a thin model, and did not receive any physical appearance priming.

After participants were exposed to their respective photographs and lifestyle information, they completed the life outcomes questionnaire. Participants then indicated how they felt at the moment by completing the mood measure, as well as the state self-esteem measure (Heatherton & Polivy, 1991). Following this, participants completed the modified version of the selves questionnaire (Higgins et al., 1985) to assess their beliefs about their actual and ideal selves. Finally, participants rated their perceptions of their own level of attractiveness using the BES (Franzoi & Shields, 1984). Participants were thanked and fully debriefed at the end of the experiment.

## Results

### Comparability of Stimulus Materials

Because this study used two different photographs of thin models (in the experimental conditions) and two different photographs of running shoes (in the control condition), the first step in the analysis was to examine if participants' responses in this study differed as a function of the photograph to which they were exposed (Photo 1 or Photo 2). As such, a multivariate ANOVA was conducted to show that the two female models did not elicit different responses on the dependent variables (means and standard deviations for the variables are summarized in Table 2),  $F(9, 116) = .816$ , *ns*, and that the two pairs of running shoes did not elicit different responses on the dependent variables,  $F(9, 12) = 1.71$ , *ns*. Because the two figures in each set of photographs showed no differences across the dependent variables, the data for the two photographs depicting the female figures were collapsed throughout the rest of the analyses, as were the data for the two photographs showing the running shoes.

### Body Mass Index

Participants' actual body mass index (BMI) may influence the degree to which they feel self-dissatisfied after a social comparison with a thin-ideal female image (see Appendix H for a histogram of participant's BMIs). Indeed, other researchers have noted that satisfaction with one's body (e.g., when one's body shape is not markedly different from the thin-ideal image presented) may be associated with overall self-satisfaction after exposure to thinness-depicting media images (Harrison & Cantor, 1997; Posavac, Posavac, & Posavac, 1998). Thus, all analyses contrasting the conditions in which participants believed that the thin-ideal female image enjoyed positive life success

against the conditions in which participants had no such belief were conducted with participants' BMI scores covaried out.

#### Differences Between Conditions (Stereotype Consistent Vs. Stereotype Inconsistent)

Two conditions (Condition 1 and Condition 4) comprised the stereotype-consistent category, and two conditions (Condition 2 and Condition 3) comprised the stereotype-inconsistent category. It is possible that there may be differences in participants' responses within these conditions. For example, perhaps explicitly confirming women's positive life stereotypes of a thin-ideal female image (Condition 1) may increase their levels of self-dissatisfaction in comparison to implicitly confirming their stereotypes by allowing women to use their baseline physical attractiveness stereotypes when comparing themselves to a thin-ideal female image (Condition 4). Similarly, perhaps leading women to believe that there is a negative correlation between weight and lifestyle (Condition 3) may result in more self-satisfaction than merely negating the positive life stereotypes of thin-ideal female images (Condition 2). Thus, the strength of the manipulation may have varied within life-style information conditions.

To test these hypotheses, univariate ANOVAs were conducted to explore the possibility of differences between Conditions 1 and 4, as well as Conditions 2 and 3, on the dependent variables. As shown in Table 3 (see Table 3 for the ANOVA results using the omnibus error term), there was a significant difference between Conditions 1 and 4 and between Conditions 2 and 3 on the variable of mismatches, whereby those in Condition 4 reported greater mismatches than those in Condition 1, and those in Condition 3 reported greater mismatches than those in Condition 2 (see Table 2 for means and standard deviations). These results indicate that, with the exception of



mismatches in both the stereotype-consistent and stereotype-inconsistent conditions, there were no other differences within conditions based on the strength of the lifestyle information manipulation. Of particular interest to this study, Condition 1 and Condition 4 (stereotype-consistent), as well as Condition 2 and Condition 3 (stereotype-inconsistent) did not differ on the life outcomes variables. As such, all further analyses were conducted weighing Condition 1 and Condition 4 equivalently, and Condition 2 and Condition 3 equivalently.

### Life Outcomes

One way to discern self-satisfaction after an upward social comparison with an ideal female image is to measure one's belief that one will attain positive life outcomes, such that those who are more satisfied with themselves should report higher probabilities that they will achieve life success than those with less self-satisfaction.

The life outcomes measure was based on a modified version of the possible selves questionnaire (Markus & Nurius, 1986) and asked participants to speculate on the probability that they might experience life circumstances of either a positive or negative nature. Participants' scores on the items that measured positive life outcomes were added together, and the average of those scores then constituted the positive life outcomes variable ( $\alpha=.85$ ). Similarly, participants' scores on the items that measured negative life outcomes were added together and the average of those scores then constituted the negative life outcomes variable ( $\alpha=.86$ ).

It was hypothesized that participants who were given positive life stereotype information about the thin model or who were given no information about the model (and should therefore rely on their own positive stereotypes) should experience more negative

self-perceptions and hence, more pessimism regarding their future life outcomes after viewing a photograph of a thin-ideal model than those participants who were given information that either negates positive life stereotypes of thin women, or information that was contrary to the positive life stereotypes. The results partially supported this hypothesis.

Planned comparisons (conducted within the framework of an overall ANOVA) were conducted to determine whether the average ratings in the positive stereotypes (Condition 1) and the no information (Condition 4) conditions (known hereafter as the stereotype-consistent conditions) differed from the average ratings in the negated positive stereotypes (Condition 2) and the contrary information (Condition 3) conditions (known hereafter as the stereotype-inconsistent conditions) in determining participants' beliefs that they will experience positive future life outcomes for themselves (see Appendix I for a summary of the overall ANOVA results). This comparison yielded significant results,  $t(121)=1.98$ ,  $p<.05$ , indicating that participants in the stereotype-consistent conditions predicted less positive life outcomes for themselves than those in the stereotype-inconsistent conditions (see Table 2 for means and standard deviations of life outcomes variables).

Although validating participants' positive stereotypes about thin women led them to predict less positive life outcomes for themselves, it did not lead them to predict more negative life outcomes for themselves in comparison to those whose stereotypes about thin women were disconfirmed. Planned comparisons (conducted within the framework of an overall ANOVA) showed that the average ratings of those in the stereotype-consistent conditions did not differ from those in the stereotype-inconsistent conditions in

terms of predictions about experiencing negative life outcomes,  $t(121) = .79$ , *ns* (see Appendix I for a summary of the overall ANOVA results)

Taken together, these findings suggest that women who believe that thinness equals life success may predict that they will have less positive possible selves than women who believe that thinness does not equal life success. However, the belief that thinness and life success are correlated does not seem to affect the manner in which people view their negative possible selves. This is consistent with past research on possible selves which shows that respondents, in general, tend to have a positivity bias, in which they typically report low probabilities that they could have negative outcomes in their lives (Markus & Nurius, 1986).

### Mood

Given that participants who were exposed to thin models with ostensibly happy lives reported lower probabilities of life success for themselves than those whose positive life stereotypes of thin women were disconfirmed, it is likely that these participants should also report more negative moods than those who do not believe that there is a positive correlation between thinness and lifestyle.

Participants made self-ratings on a group of ten bipolar adjectives. The scores from these ten adjectives were then averaged to create the mood variable ( $\alpha = .96$ ). Planned comparisons (conducted within the framework of an overall ANOVA), contrasting the average mood scores in the stereotype-consistent conditions against the average mood scores in the stereotype-inconsistent conditions revealed a significant finding,  $t(121) = 3.17$ ,  $p < .01$  (see Appendix I for a summary of the overall ANOVA results). Thus, as hypothesized, those who believed that there was a positive correlation

between being thin and having positive life success were more likely to report being in a negative mood after exposure to a thin model than those who had no such belief.

It was also expected that all participants who were primed with appearance- or weight-related information about themselves (e.g., participants in the experimental conditions who were weighed and saw a photograph of a thin model) should report being in a more negative mood than those who were not prompted to think about their appearance or weight. As such, a planned comparison, contrasting the four experimental conditions against the control condition on mood, was conducted. Results showed a significant finding,  $t(175)=4.52$ ,  $p<.001$ , indicating that people in the control condition experienced significantly more positive moods than those who were exposed to any appearance- or weight-related information (see Table 2 for means and standard deviations).

These results suggest that while it makes women feel better to believe that thin women do not have better lives on the basis of weight alone, just thinking about one's own weight and appearance, in general, leads women to experience somewhat negative moods. However, one might suspect that certain women, such as those whose bodies are heavier than average, might feel the most negatively after being prompted with appearance- and weight-related stimuli.

To explore this possibility, participants' BMI scores were trichotomized into the heaviest one-third of participants, the middle one-third of participants, and the thinnest one-third of participants. Following this, separate planned comparisons (conducted within the framework of an overall ANOVA) were performed for each weight category exploring the effects of condition (e.g., stereotype-consistent or stereotype inconsistent

information) on mood. The results revealed a marginally significant effect for women in the heaviest BMI category,  $t(133)=1.47$ ,  $p<.07$  ( $F(3, 47)=1.99$ , ns), such that heavy women who received stereotype-consistent information about the thin-ideal female image experienced more negative mood than heavy women who received stereotype-inconsistent information. However, there were no significant mood by condition differences for women in the medium-sized or thin categories,  $t(133)=.98$ , ns ( $F(3, 48)=1.12$ , ns) and  $t(133)=1.03$ , ns ( $F(3, 48)=.21$ , ns), respectively. These results suggest that the moods of heavy women were the most influenced by the lifestyle information that they received.

Although the results indicate that people tend to report being in a more negative mood if they believe that there is an association between thinness and life success, perhaps people experience (negative) mood through their cognitions. Thus, beliefs in lifestyle information about a thin-ideal female image may lead to negative mood via participants' predictions about their possible positive future life outcomes. To investigate this issue, a mediational analysis following the guidelines set forth by Baron and Kenny (1986) was performed (see also Judd & Kenny, 1981). That is, one must first show that there is a significant relationship between the independent variable (i.e., stereotype conditions) and the dependent variable (i.e., mood). Then, one must show that there is a significant relationship between the independent variable and the mediator variable (i.e., positive life outcomes). Finally, one must show that there is a significant relationship between the mediator variable and the dependent variable. If all necessary paths are significant, then a mediational analysis can be performed.

Thus, a regression analysis regressing stereotype condition (a dummy coded variable such that 1 is stereotype-consistent conditions and 0 is stereotype-inconsistent conditions) on mood was performed. Indeed, there was a significant relationship between stereotype condition and mood,  $\beta=.22$ ,  $t(143)=2.70$ ,  $p<.01$ . Another regression was then conducted regressing stereotype condition on positive life outcomes. The results revealed a marginally significant relationship between condition and positive life outcomes,  $\beta=.32$ ,  $t(144)=1.84$ ,  $p=.068$ . Finally, a regression regressing positive life outcomes on mood was performed. The results showed a significant relationship between the two variables,  $\beta=.33$ ,  $t(143)=4.16$ ,  $p<.001$ .

A hierarchical regression analysis was then conducted to test for mediation, in which the initial inclusion of the mediational variable, positive life outcomes, in predicting mood should weaken the relationship between condition type and mood (entered as a second step in the regression equation). The results revealed that the inclusion of positive life outcomes weakened the relationship between condition type and mood,  $\beta=.17$ ,  $t(142)=2.22$ ,  $p<.05$ . However, in order to discern whether this weakened relationship amounted to mediation, a modification of Sobel's test (Baron & Kenny, 1986) was used. This test produced a Z score of 1.64, which is not-significant, 2-tailed  $p=.10$ . Hence, it appears that positive life outcomes does not mediate the relationship between condition type (lifestyle information) and mood.

Although positive life outcomes did not mediate the relationship between condition type and mood, it is possible that mood may mediate the relationship between condition type and positive life outcomes. Thus, an exploratory second mediational analysis was conducted to explore this possibility. As shown earlier, there was a

marginally significant relationship between condition type and positive life outcomes, a significant relationship between condition type and mood, and significant relationship between mood and positive life outcomes. Because all necessary paths were shown to be significant, a mediational analysis could be performed (Baron & Kenny, 1986). A hierarchical regression analysis was then conducted to test for mediation, in which the initial inclusion of the mediational variable, mood, in predicting positive life outcomes should weaken the relationship between condition type and positive life outcomes (entered as a second step in the regression equation). The results revealed that the inclusion of positive life outcomes weakened the relationship between condition type and positive life outcomes,  $\beta = .18$ ,  $t(142) = 1.00$ ,  $p = .32$ . In order to examine whether this weakened relationship amounted to mediation, a modified version of Sobel's test was performed (Baron & Kenny, 1986). This test produced a Z score of 2.21, which is significant, 2-tailed  $p = .027$ . Hence, it appears that mood mediates, to some extent, the relationship between condition type (lifestyle information) and positive life outcomes.

Because one's mood may affect how one feels about oneself, it should follow that those in more negative moods should also report lower levels of state self-esteem than those in more positive moods.

#### State Self-Esteem

As expected, a regression analysis regressing mood on appearance, social, and performance SSES revealed significant findings,  $\beta = .77$ ,  $t(143) = 14.43$ ,  $p < .001$ ,  $\beta = .61$ ,  $t(143) = 8.99$ ,  $p < .001$ , and  $\beta = .24$ ,  $t(143) = 2.91$ ,  $p < .01$ , respectively. These results suggest that participants who reported less positive moods experienced lower appearance, social, and performance SSES than those who reported more positive moods.

Similarly, the prediction that those who hold positive associations between weight and lifestyle should experience lower levels of state self-esteem relative to those who do not hold such associations was supported. A planned comparison (conducted within the framework of an overall ANOVA), testing whether participants would report different levels of appearance SSES as a function of condition was significant,  $t(121)=2.16$ ,  $p<.05$  (see Appendix I for a summary of the overall ANOVA results). Moreover, a planned comparison testing for differences in social SSES as a function of condition was also significant,  $t(121)=2.01$ ,  $p<.05$ . However, the effect of condition on performance SSES was not significant,  $t(121)=.13$ , ns. These results seem sensible given that appearance-related SSES and social SSES should be the most affected by the threat of an upward comparison to a thin model, whereas performance SSES (e.g., levels of ability) may be more remote from body image concerns.

#### Actual versus Ideal self

Another method by which self-dissatisfaction may be measured is through ideal self and actual self mismatches. Specifically, people who hold positive life stereotypes of thin models may be more likely to wish to be thin themselves so that they, too, can enjoy positive life success. As such, these people may also be more likely to report greater discrepancies between who they are versus who they want to be in comparison to people who do not hold such associations between weight and lifestyle.

Planned comparisons (conducted within the framework of an overall ANOVA), contrasting the mismatch scores in the stereotype-consistent conditions against the mismatch scores in the stereotype-inconsistent conditions yielded non-significant results,  $t(121)=1.31$ , ns (see Appendix I for a summary of the overall ANOVA results). These



results indicate that participants did not generate greater self-mismatches as a function of their positive life stereotypes about thin women (see Table 2 for means and standard deviations).

Additionally, the mismatch statements generated by the participants were coded for either lifestyle discontent (e.g., “I am lonely”/”I wish I were less lonely”; “I don’t have a boyfriend”/”I wish I could be more attractive to the opposite sex”) or body image discontent (e.g., “I am overweight”/”I wish I weighed 30 pounds less”; “I have a big belly”/”I wish I had a flatter stomach”) by two research assistants (with a third research assistant settling coding disagreements). Inter-rater agreement was relatively high for body mismatches (157 agreements out of a total of 184 decisions, yielding a 85% agreement rate) and somewhat lower for life mismatches (117 agreements out of a total of 184 decisions, yielding a 64% agreement rate). These statements were scored in order to discern whether participants were more likely to generate spontaneous mismatches about their lifestyles or their bodies.

Thus, a mixed-design ANOVA was conducted in which the experimental condition assigned to the participant was treated as a between-subjects variable, and the coded scores for mismatches (lifestyle or body) was entered as a repeated measure. The results revealed non-significant findings,  $F(1, 142)=2.25$ , ns, such that there was no difference between the amount of lifestyle mismatches and body mismatches spontaneously generated across conditions (see Table 2 for means and standard deviations).

### Attractiveness

Because exposure to thin-ideal female images with ostensibly successful lives may lead one to feel more negatively about one's own appearance, it was hypothesized that those in the stereotype-consistent conditions would report feeling less attractive than those in the stereotype-inconsistent conditions. As predicted, planned comparisons revealed that women in the stereotype-consistent conditions reported less body-attractiveness scores than women in the stereotype-inconsistent conditions,  $t(121)=2.21$ ,  $p<.05$  (see Appendix I for a summary of the overall ANOVA results). Moreover, women in the stereotype-consistent conditions also reported less overall attractiveness scores than women in the stereotype-inconsistent conditions,  $t(121)=1.94$ ,  $p<.05$  (see Table 2 for means and standard deviations).

### Additional Analyses

An interesting question that one may ask is whether the current study replicates previous research on body image, in which women report feeling more self-dissatisfied after exposure to thin-ideal female images than to neutral images (Heinberg & Thompson, 1995; Thornton & Maurice, 1997). In order to explore this issue, univariate ANOVAs were performed to investigate possible differences in the dependent variables comparing Condition 4 (no information/photograph of thin-ideal female image) and Condition 5 (control – no information/photograph of running shoes). These two conditions were chosen because they best represent previous comparison groups in body image research. As shown in Table 4, there was a significant finding for mood, such that participants in Condition 4 reported being in a more negative mood than those in Condition 5 (see Table 2 for means and standard deviations). However, there were no

other significant differences between the two conditions.

Lastly, previous research indicates that there may be cultural differences among women in terms of their body image. For example, researchers have found that African-American women tend to be more accepting of heavier body-types (Hebl & Heatherton, 1998), and that they report more self-satisfaction in the face of a social comparison with a thin-ideal female image than Anglo-American women (Chin & McConnell, 2001). In contrast, Asian-American women respond similarly to Anglo-American women with regards to body image concerns, and also tend to show lower levels of self-satisfaction after exposure to thin-ideal female images (Chin & McConnell, 2001). Thus, African-American participants may have responded in a different manner than the other participants in this study. For this reason, planned comparisons were conducted exploring the impact of stereotype information (consistent vs. inconsistent information) on the dependent variables, selecting out African-American participants.

As revealed in Table 5 (see Appendix J for a summary of the overall ANOVA results), the only significant planned comparison was with mood, whereby participants in the stereotype-consistent conditions experienced more negative moods ( $M_s = -.92$  and  $-1.28$ ) than participants in the stereotype-inconsistent conditions ( $M_s = -.80$  and  $-.41$ ). These results are consistent with the previous findings on mood in the current study which included the African-American participants.

Although the effect of stereotype information (consistent vs. inconsistent) on mood remained significant when the responses of African-American participants were excluded from analysis, the effect on positive life outcomes became non-significant. These results may have occurred because the effect of stereotype information on positive

life outcomes may have been particularly strong among the African-American participants. However, the interaction of condition (stereotype life information) and race of participant on positive life outcomes was non-significant,  $F(8, 130) = .69$ , *ns*, providing no evidence that the effects were stronger among African-American participants than among all participants in general.

### Discussion

While it is generally accepted in the body image literature that viewing thin, attractive female images in the media leads women to feel more negatively about their own bodies, the current study further hypothesized that it may be the association between thin and positive life-success that leads women to feel negatively about their own circumstances, which may then translate into feeling negatively about their own bodies. These results should be especially robust when controlling for women's actual body mass index (BMI). As previous research has shown, women's actual body shape may influence the way that women respond to social comparisons with a thin-ideal female, such that women with body shapes that are not markedly different from the thin-ideal image should not feel negative about themselves after a social comparison (Posavac et al., 1998). Thus, all analyses in this study comparing participants from the stereotype-consistent conditions against participants from the stereotype-inconsistent conditions were conducted controlling for participants' actual BMIs.

Moreover, there were two conditions that comprised the stereotype-consistent category, and two conditions that comprised the stereotype-inconsistent category. It may be argued that there may be differences in the strength of the manipulation within category type (stereotype consistent vs. stereotype inconsistent lifestyle information).

For instance, perhaps explicitly contradicting physical attractiveness stereotypes (Condition 3) may be a more powerful manipulation than merely negating the stereotypes (Condition 2). Similarly, perhaps explicitly reinforcing women's physical attractiveness (Condition 1) stereotypes may be more powerful than having them rely on their own baseline stereotypes (Condition 4).

The results revealed that participants' reported greater mismatches when relying on their own baseline stereotypes in comparison to participants who received stereotype-confirming information. Similarly, participants reported greater mismatches when exposed to negative information about the thin-ideal female than when exposed to neutral lifestyle information. There were no other significant differences between the two conditions in the stereotype-consistent categories, or between the two conditions in the stereotype-inconsistent categories. These results indicate that it may not be the strength of the information that influences self-(dis)satisfaction, but rather the valence of the information. Thus, it was appropriate to conduct analyses contrasting Conditions 1 and 4 (stereotype-consistent) against Conditions 2 and 3 (stereotype-inconsistent).

It was predicted that women who were exposed to stereotype-consistent life information about a thin-ideal female image would feel more self-dissatisfied than women who were exposed to stereotype-inconsistent life information. Consistent with these predictions, exposure to thin models with ostensibly stereotype-consistent life circumstances led women to predict less positive future life outcomes for themselves in comparison to women who were exposed to thin models with ostensibly stereotype-inconsistent life circumstances. However, exposure to stereotype-consistent life information about the thin-ideal female image did not lead women to predict more

negative life outcomes for themselves in comparison to women who received stereotype-inconsistent life information about the thin-ideal female. Thus, it appears that women may strive for thinness as a consequence of their belief that thinness will lead to more life success and happiness, and yet, women may not believe that they will suffer too much if they cannot be as thin as they would like to be.

Also consistent with predictions that women should feel self-dissatisfied if they believe that there is a positive association between weight and lifestyle, the participants who reported being in the most negative mood were those who received stereotype-consistent life information about the thin-ideal female image. In contrast, participants who received stereotype-inconsistent life information about the thin-ideal female image reported feeling less negatively about themselves. This effect was particularly true for participants who were categorized as having the highest BMI scores (in comparison to other participants). Interestingly, all participants who received appearance- and weight-related feedback about themselves (i.e., those who were weighed in front of a mirror and measured for height) reported experiencing more negativity than those who did not receive appearance- or weight-related feedback.

Taken together, these findings suggest that women experience more self-satisfaction if they believe that there is a negative or non-existent association between weight and lifestyle in comparison to those who believe that there is a positive correlation between weight and lifestyle; and, this effect seems to be the most reliable for women with higher BMIs in comparison to women with lower BMIs in the current study. Nevertheless, all women seem to experience some degree of self-dissatisfaction if primed with appearance- or weight-related information about themselves.

Although women experienced more negative moods in the stereotype-consistent conditions than in the stereotype-inconsistent conditions, one may question whether physical attractiveness stereotypes leads directly to (negative) mood, or if there is another variable that mediates this relationship. As such, a mediational analysis was performed exploring the role of participants' predictions of positive future life outcomes for themselves between lifestyle-information of the thin-ideal female image and mood. The results revealed that positive future life outcomes did not mediate the relationship between lifestyle information and mood.

Interestingly, a second exploratory mediational analysis investigating mood as the mediator of lifestyle information and positive life outcomes showed mediation. These results are surprising because one would suspect that one's cognitions about one's possible future life outcomes should mediate the relationship between lifestyle information about a thin-ideal female image and mood, and not the reverse. It is possible that differences in the psychometric qualities of the mood measure and the positive life outcomes measure may account for these unexpected findings, such that the mood measure ( $\alpha=.96$ ) was more internally consistent than the positive life outcomes measure ( $\alpha=.85$ ). In any case, these results display an interesting trend that require replication in order to further understand the implications of these findings.

It was also hypothesized that women who were exposed to stereotype-consistent information about thin-ideal images should experience lower state self-esteem than those who were exposed to stereotype-inconsistent information. These predictions were supported. The results revealed that participants in the stereotype-consistent conditions reported lower appearance SSES and social SSES than participants in the stereotype-





inconsistent conditions. However, the effect of condition on performance SSES was not significant. These results are not surprising because body image social comparisons should be particularly impactful for appearance and social self-esteem (those variables which seem to be more meaningful for self-feelings of physical attractiveness) than for performance self-esteem, which may be more remote from body image concerns.

The prediction that participants would generate more mismatches in the stereotype-consistent conditions relative to those in the stereotype-inconsistent conditions did not borne out. Mismatches between one's actual and ideal selves did not differ as a function of the experimental condition to which participants were assigned. One plausible explanation for these null findings is that the measure for mismatches was somewhat tedious and required the participants to answer several pages of questionnaires. Furthermore, this measure was given to the participants at the end of the experiment. It is possible that participants' concentration levels dwindled at the end of the study, which may have resulted in the non-significant findings.

Moreover, although it was hypothesized that participants would spontaneously generate more lifestyle mismatches than body mismatches across all lifestyle information conditions, this prediction also was not supported. It is possible that non-significant results occurred because dissatisfaction with one's body may be intimately intertwined with dissatisfaction with one's life. Thus, there may be some ambiguity as to whether participants were experiencing self-discrepancy with their body or their life when they listed down a mismatch (e.g., "I wish I could be 5 pounds lighter," might translate into "I wish I had more self-confidence"). Moreover, the inter-rater agreement for life-



mismatches was only 64%. It is possible that this relatively low inter-rater agreement may have also played a role in the non-significant findings.

Consistent with the a priori predictions, participants' attractiveness scores (both body and overall attractiveness) were lower in the stereotype-consistent conditions than in the stereotype-inconsistent conditions. These results provide further evidence that women may experience self-dissatisfaction to the extent that they believe that a thin-ideal female image ostensibly enjoys positive life success.

In addition, past research has shown that people tend to feel more self-dissatisfied after viewing appearance-related images than non-appearance related images (Heinberg & Thompson, 1995). One question that arose with respect to the current study is whether the findings replicate past research on body image. That is, do people feel more self-dissatisfied after exposure to thinness-depicting media images (without any lifestyle information – Condition 4) in comparison to exposure to non-appearance related images (neutral stimuli – Condition 5)? The results showed that the only difference between the two conditions was on mood, such that those who were exposed to a thin-ideal female image reported being in a more negative mood than those who were exposed to a photograph of a pair of running shoes.

Similar results occurred when African-American participants were selected out to investigate cultural differences in the current study. Because previous research has evinced that African-American females tend to be more accepting of heavier body types than Anglo-American women (Hebl & Heatherton, 1998) and are less likely to compare themselves to western ideals of beauty than Anglo-American women or Asian-American women (Chin & McConnell, 2001), it is possible that including African-Americans in the

data analyses may have been masking significant findings. Thus, additional analyses were conducted selecting out African-American participants.

The results revealed that the only significant effect that emerged was on mood, such that those in the stereotype-consistent conditions reported more negative moods than those in the stereotype-inconsistent conditions. Although these findings replicated the earlier results that showed that participants in the stereotype-consistent conditions reported more negative mood than participants in the stereotype-inconsistent conditions among all participants, it did not replicate the effect of condition on positive life outcomes. These results suggested that perhaps the effect of condition on positive life outcomes was particularly strong for African-American participants. However, the results did not support this notion.

It is possible that selecting out African-American participants weakened the power of the data analyses (note that African-Americans did constitute 13.3% of the participants), such that effects that may have emerged with more participants remained non-significant (e.g., positive life outcomes). Perhaps with a larger sample of participants, these cultural analyses would be more conclusive.

Overall, this study yielded evidence of a general phenomenon, in which, consistent with the a priori predictions, confirming or disconfirming life stereotypes about thin-ideal females led women to report different levels of life-satisfaction. Namely, women reported a less optimistic outlook of their future life possibilities as well as more negative mood, lower appearance and social state self-esteem, and lower attractiveness scores when presented with a thin-ideal female with stereotype-consistent life information in contrast to women who were presented with a thin-ideal female with

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stereotype-inconsistent information. Moreover, optimism for future life outcomes mediated the relationship between stereotypes of thin females and mood, in which positive future life outcomes, to some extent, provided a mechanism through which life stereotypes of thin-ideal females affected women's mood. These findings suggest that women's stereotypes about thin females influences their feelings about themselves, and that body image, in and of itself, may not be sufficient to understand why women may feel self-dissatisfied after comparing themselves to a thin model. Rather, women seem to have positive stereotypes associated with being thin and beautiful (e.g., Dion et al., 1972; Eagly et al., 1991; Hatfield & Sprecher, 1986), and it is the belief in this stereotype that seems to, in part, drive self-dissatisfaction.

Although participants seemed to respond to the dependent measures in a manner consistent with predictions, one cannot be sure that participants fully believed the lifestyle information that they were given with respect to the thin-ideal female image or if participants were, indeed, comparing themselves to the model. Therein lies the first limitation of this study. Specifically, manipulation checks were not performed to determine if participants truly accepted the lifestyle information that they received or if participants made social comparisons with the model. Future research using this experimental paradigm should employ manipulation checks to confirm that the manipulation was successful.

The second limitation of this study is that demand characteristics may have played a role in the way that participants responded to the measures. Although they were given a cover story that the study was about health and nutrition, it is possible that several of the participants may have guessed the true purpose of the experiment and completed the

questionnaires in a manner that they believed was consistent with the hypothesis.

However, it should be noted that none of the participants seemed suspicious, or made any comments that would suggest that they knew about the about the true nature of the experiment during the laboratory sessions.

One question that arose out of this study is the degree to which weighing or not weighing participants affects feelings about the self relative to the effects of viewing a thin-ideal image versus a pair of running shoes. As shown earlier, the mood of those participants who were in the experimental conditions and were therefore weighed (and saw the photograph of the thin model) was significantly more negative than the mood of those in the control condition who were not weighed (and saw the photograph of the running shoes). Thus, a third study was conducted in order to explore whether feelings of negativity in Study 2 were the result of the exposure to a thin-ideal female image, or if the findings were due to negative feelings associated with being weighed.

Study 3 also examined two personality factors that may contribute to feelings of self-satisfaction after receiving appearance- and weight-related stimuli. Specifically, Study 3 investigated whether those who have stronger associations between weight and positive life-success experience more self-dissatisfaction after exposure to a thin-ideal female image than those who have weaker associations between being thin and enjoying positive life-success. Moreover, Study 3 also examined whether those who have internalized societal standards of thinness and attractiveness for women were more likely to suffer from self-dissatisfaction after an upward social comparison to a thin-ideal female image than those who have less internalization of such standards (Heinberg, Thompson, & Stormer, 1995). As illustrated by Heinberg and Thompson (1995), female

participants who reported higher levels of internalizing thinness standards were more likely to experience negative affect and lowered body satisfaction after viewing appearance related television commercials in contrast to those who reported lower levels of internalizing thinness standards. Thus, women who report higher levels of internalizing thinness standards should be highly susceptible to experiencing self-dissatisfaction after an upward social comparison to a thin-ideal standard.

### **STUDY 3**

#### **Method**

##### **Participants**

Participants were 81 women recruited from Michigan State University introductory level psychology classes in exchange for course-related credit. Of the participants, 76.5% were European-American, 11.1% were African-American, 6.2% were Asian-American, 4.9% were Hispanic-American, and the remaining 1.2% were from other ethnic backgrounds. The mean age of the participants was 19.7 years old and their mean BMI was 22.7 (with a normal range of BMI scores being between 18-25; Korbonits, Trainer, Little, Edwards, Kopelman, Besser, Svec, & Grossman, 1997; see Appendix K for a histogram of participants' BMI scores).

##### **Measures**

Associations between thinness and lifestyle. To assess possible associations between thinness and lifestyle, participants completed a 10-item questionnaire (embedded in twenty other non weight-related questions) measuring the extent to which they believe that there is a relationship between weight and life success (Appendix L presents this instrument). Participants were asked to respond to items on a scale ranging from 1



(strongly disagree) to 9 (strongly agree) on questions such as, “Thinner women lead more satisfied lives than heavier women,” and “Heavier women are less likely to drive an expensive sports car than thinner women.” The internal consistency for this scale is  $\alpha=.91$ .

Internalization of thinness standards. The sociocultural attitudes towards appearance questionnaire (SATAQ; Heinberg et al., 1995) was used to assess participants’ internalization of societally approved standards of physical appearance for women (Appendix M presents this instrument). The internalization subscale of the SATAQ is an 8-item questionnaire and includes such items as, “Women who appear in TV shows and movies project the type of appearance that I see as my goal,” and “Attractiveness is very important if you want to get ahead in our culture.” Participants responded to items on a scale ranging from 1 (completely disagree) to 5 (completely agree) with some items reverse scored. The internal consistency for this scale is  $\alpha=.88$  (Heinberg et al., 1995).

Life outcomes. The same scale used to measure possible selves in Study 2 was used in the current study to measure participants’ beliefs about their possible future life outcomes (See Appendix C). However, in the current study, participants completed this questionnaire three times, once about their current self, once while imagining themselves as “thin” (as thin as they want to be) and once while imagining themselves as “heavy” (50 pounds heavier than they are currently). The internal consistency for this scale is  $\alpha=.85$  (current self positive life outcomes),  $\alpha=.88$  (current self negative life outcomes),  $\alpha=.87$  (thin self positive life outcomes),  $\alpha=.84$  (thin self negative life

outcomes),  $\alpha=.91$  (heavy self positive life outcomes), and  $\alpha=.92$  (heavy self negative life outcomes).

Mood and State self-esteem. General mood and state self-esteem were measured using the same questionnaires that were employed in Study 2 (See Appendix D and Appendix E). The internal consistency for mood is  $\alpha=.95$ , and the internal consistency for state self-esteem is  $\alpha=.92$  (Heatherton & Polivy, 1992).

### Design and Procedure

This study employed a 2 (photograph: thin-ideal female vs. running shoes) X 2 (weight measured: yes vs. no) between-subjects factorial design.

Participants completed a questionnaire assessing the strength of their weight and lifestyle associations on the world-wide-web prior to coming into the laboratory. They also completed the SATAQ (Heinberg et al., 1995) to measure their internalization of societal standards of thinness for women prior to coming into the laboratory. These measures were taken prior to participants coming into the laboratory so as to not influence their responses on other variables.

Similar to Study 2, participants were greeted by a female experimenter and were informed that the study was about the impact of the media on health. Therefore, they were told that they would be looking at a media image and would answer several questionnaires. Participants in the weigh condition were asked to complete a questionnaire on their dietary habits (e.g., “How often do you eat fruits and vegetables?” “How often do you exercise?” “How often do you drink alcohol?”), and were weighed and measured for height in front of a mirror. Participants in the no-weigh condition were asked to complete the dietary habits questionnaire, but were not weighed nor measured

for height. Participants in both the weigh and no-weigh conditions were then randomly assigned to view either one of two photographs of a thin-ideal female or one of two photographs of a pair of running shoes (the same photographs that were employed in Study 2). Participants were then asked to complete the life outcomes questionnaire based on their current circumstances (i.e., current physical appearance, current lifestyle) in order to measure their optimism about their futures. Following this, participants completed the mood measure, as well as the state self-esteem scale (Heatherton & Polivy, 1991). Finally, they completed the life outcomes questionnaire two more times, once while imagining themselves to be as thin as they would like to be, and once while imagining themselves to be 50 pounds heavier than their present self. Participants were thanked and debriefed at the end of the study.

### Results

The first point of interest was whether or not Study 3 replicated the findings of Study 2. That is, Study 2 showed that there was a significant difference between those participants who were exposed to a photograph of a thin-ideal female (with no life-information) and those participants who were exposed to a photograph of a pair of running shoes, such that those who viewed a thin-ideal female reported being in a more negative mood than those who viewed a pair of running shoes. However, there were no other significant findings on the dependent variables (e.g., life outcomes, state self-esteem, mismatches, attractiveness). These results were surprising because it was not consistent with previous research on body image that shows that women report feeling more self-dissatisfied after exposure to thin-ideal female images than to neutral images (Heinberg & Thompson, 1995; Thornton & Maurice, 1997).

In order to explore whether Study 3 replicated Study 2, a one-way analysis of variance (ANOVA) was performed contrasting participants in the weigh/photograph of thin-female condition against participants in the no weigh/photograph of running shoes condition on mood. The results revealed non-significant findings,  $F(1, 37)=2.11$ , ns. Moreover, the multivariate ANOVA contrasting the weigh/thin-female condition against the no weigh/running shoes condition on all of the dependent variables was also non-significant,  $F(10, 26)=1.24$ , ns. Hence, it appears that Study 3 did replicate Study 2 for the most part, although Study 2 found a significant effect on mood, whereas Study 3 did not.

#### Primary Analyses

One of the aims of this study was to clarify the findings of Study 2. In particular, this study investigated whether negative feelings about the self were a direct consequence of the social comparison to a thin-ideal female image, or if negative feelings occurred as a product of being weighed. Thus, a MANOVA was conducted in order to examine whether there were any significant differences among dependent variables as a function of the photograph to which participants were exposed (thin-ideal female vs. running shoes), and weigh condition (weighed vs. not weighed; see means and standard deviations for the dependent variables in Table 6). The results revealed a significant multivariate main effect for photograph,  $F(10, 63)=2.21$ ,  $p<.05$ , and a non-significant effect for both weigh,  $F(10, 63)=1.48$ , ns, and the interaction between photograph and weigh,  $F(10, 63)=.78$ , ns. These results suggest that exposure to thin-ideal females, alone, rather than being weighed, affected participants' reports of self-dissatisfaction in Study 2.

Univariate ANOVAs were then conducted on each of the individual dependent variables to explore the impact of photograph on these variables. Results showed non-significant effects for any of the life outcome variables (see Table 7 for means, standard errors, and ANOVA F-values). However, there was a significant mood effect, such that those who were exposed to a photograph of running shoes reported being in a more positive mood than those who were exposed to a photograph of a thin-ideal. Finally, results yielded non-significant effects for appearance and performance SSES. However, there was a significant finding for social SSES. Surprisingly, the social SSES pattern of results contradicted the predictions. In fact, the results indicate that those who were exposed to a thin-ideal female reported higher social SSES scores than those who were exposed to a pair of running shoes.

Although the results revealed that women's levels of self-satisfaction was influenced by the photograph to which they were exposed, it is possible that their actual BMI scores may affect these findings. In order to examine this issue more closely, a median split on participants' BMI scores was computed. Following this, a MANOVA was conducted in order to determine if participants' BMI scores moderated the effects of photograph on the dependent variables. The results revealed a non-significant main effect for BMI,  $F(10, 24) = .46$ , *ns*. Moreover, the interaction between BMI and photograph was also non-significant,  $F(10, 24) = .90$ , *ns*. These results suggest that the actual BMI of the participants did not influence their levels of self-satisfaction after exposure to the photographs.

It was also hypothesized that certain personality variables, such as associations between weight and lifestyle and internalization of societal standards of thinness for

women, should moderate negative feelings toward the self after receiving appearance- and weight-related stimuli. Although these two potential moderator variables seem inter-related, in fact, they measure different constructs and are independent from each other,  $r(73) = .15$ , ns. Moreover, because earlier univariate ANOVAs indicated that there was a significant effect of photograph on mood and social SSES, the moderator analyses were performed to investigate the effects of the two moderator variables on photograph and mood, as well as photograph and social SSES.

The results revealed that the variable of associations between weight and lifestyle did not moderate the effects of photograph on mood,  $F(1, 70) = .11$ , ns (see Table 8 for means and standard errors), nor the effects of photograph on social SSES,  $F(1, 71) = .20$ , ns (see Table 9 for means and standard errors). Similarly, the variable of internalization of thinness standards did not moderate the effects of photograph on mood,  $F(1, 70) = .01$ , ns (see Table 8 for means and standard errors), nor the effects of photograph on social SSES,  $F(1, 70) = .64$ , ns (see Table 9 for means and standard errors).

#### Additional Analyses

Although the two personality variables did not moderate the relationship between the photograph shown and the dependent variables, it would stand to reason that individual differences in the belief of a positive stereotype between weight and lifestyle, as well as individual differences in the internalization of thinness standards, should be related to the extent to which women feel optimistically or pessimistically about their future life outcomes when asked to imagine themselves as either normal (their current physical appearance and weight), thin (as thin as they would like to be), or heavy (50 pounds heavier than their current weight). That is, those who have stronger associations

between being thin and having life success should predict more positive life outcomes and less negative life outcomes for themselves when they imagine themselves as a thin person versus imagining themselves as a heavier person relative to those with weaker associations between weight and lifestyle. Correspondingly, those with higher levels of internalization of thinness standards should also predict more positive life outcomes and less negative life outcomes for themselves when imagining themselves as a thin person versus imagining themselves as a heavier person relative to those with lower levels of internalization.

Consistent with predictions, a mixed-design ANOVA with associations between weight and lifestyle as a between-subjects factor and positive life outcomes (as current self, thin self, and heavy self) as a repeated measure showed a main effect for positive life outcomes,  $F(2, 71)=93.94, p<.001$ . This effect was then qualified by a significant interaction between positive life outcomes and associations between weight and lifestyle,  $F(2, 71)=3.89, p<.05$  (means and standard deviations of the positive life outcome variables by weight/life associations are summarized in Table 10). In order to investigate this interaction more closely, simple effects tests examining the discrepancies in positive life outcomes between current, thin, and heavy selves were conducted separately for those who scored either low or high in their associations between weight and lifestyle, as determined by a median split. Results showed that those who were higher in their associations between weight and lifestyle showed a significantly greater discrepancy in their ratings of their positive life outcomes between their thin and heavy selves ( $M$  difference =2.57) than did those who were lower in their associations

(M difference =1.99),  $F(1, 72)=9.71$ ,  $p<.01$ . Similarly, those who were higher in their associations between weight and lifestyle showed a significantly greater discrepancy in their ratings of their positive life outcomes between their current and heavy selves (M difference =2.08) than did those who were lower in their associations (M difference =1.44),  $F(1, 72)=12.23$ ,  $p<.001$ .

Additionally, another mixed-design ANOVA was conducted with associations between weight and lifestyle as a between-subjects factor and negative life outcomes (as current self, thin self, and heavy self) as a repeated measure. Results revealed a main effect for negative life outcomes,  $F(2, 71)=78.99$ ,  $p<.001$ , such that scores on the negative life outcomes measure differed depending on whether participants imagined themselves to be their current weight, thinner than their current self, or heavier than their current self (see Table 10 for means and standard deviations of the negative life outcome variables by weight/life associations). Specifically, participants expected to have poorer life outcomes the heavier in weight they imagined themselves to be. However, the interaction between weight/lifestyle associations and life outcomes was non-significant,  $F(2, 71)=1.53$ , ns, suggesting that participants responded in a similar manner regardless of their weight/life associations.

In order to discern whether participants' internalization of thinness standards affected predictions of positive life outcomes, a mixed-design ANOVA was conducted with internalization as a between-subjects factor and positive life outcomes as a repeated measure (as current self, thin self, and heavy self). Results revealed a significant main effect for life outcomes,  $F(2, 70)=94.54$ ,  $p<.001$ , which was qualified by a significant interaction between positive life outcomes and internalization,  $F(2, 70)=4.38$ ,  $p<.05$



(means and standard deviations of positive life outcome variables by internalization of thinness standards are summarized in Table 11). These results suggest that participants' predictions of their positive life outcomes were influenced by the degree to which they internalized the belief that in order to be considered beautiful, one must also be thin. Simple effects tests were then conducted in order to examine the discrepancies in positive life outcomes between current, thin, and heavy selves for those who scored either low or high in their internalization beliefs, as determined by a median split. Results revealed that those who scored higher in internalization showed significantly greater discrepancies in their ratings of their positive life outcomes between both their thin and heavy selves ( $M$  difference = 2.77) and between their current and heavy selves ( $M$  difference = 2.04) than did those who scored lower in internalization ( $M$ s differences = 1.46 and 1.81, respectively),  $F(1, 71) = 26.09$ ,  $p < .001$  and  $F(1, 71) = 10.51$ ,  $p < .01$ , respectively. Moreover, there was a marginally significant effect for the discrepancies between thin and current selves, such that those who were higher in internalization reported more of a discrepancy between their thin and current selves ( $M$  difference = .73) than those who were lower in internalization ( $M$  difference = .35),  $F(1, 71) = 3.46$ ,  $p = .07$ .

It was also predicted that those with more internalization of thinness standards should predict more negative life outcomes for themselves than those with less internalization. Thus, a mixed-design ANOVA with internalization as a between-subjects factor and negative life outcomes as a repeated measure was conducted. This analysis revealed a significant main effect for negative life outcomes  $F(2, 70) = 79.65$ ,  $p < .001$ , which was then qualified by a significant interaction between internalization and negative life outcomes,  $F(2, 70) = 4.09$ ,  $p < .05$ , suggesting that there was a difference in predictions

for negative life outcomes depending on one's level of internalization (see Table 1 for means and standard deviations of negative life outcomes by internalization of thinness standards). Simple effects tests examining the discrepancies in negative life outcomes between current, thin, and heavy selves were then conducted separately for those who scored either low or high in their internalization beliefs, as determined by a median split. Results showed that those who scored higher in internalization showed a significantly greater discrepancy in their ratings of their negative life outcomes between their thin and heavy selves ( $M$  difference = 1.34) than did those who were lower in internalization ( $M$  difference = 1.14),  $F(1, 71) = 4.99$ ,  $p < .05$ . Likewise, those who were higher in their internalization beliefs also showed a significantly greater discrepancy in their ratings of their negative life outcomes between their thin and current selves ( $M$  difference = .66) than did those who were lower in internalization ( $M$  difference = .29),  $F(1, 71) = 14.17$ ,  $p < .001$ . Finally, there was a marginally significant effect for the discrepancies between the current and heavy selves, such that those who were higher in internalization reported more of a discrepancy in their negative life outcomes between their current and heavy selves ( $M$  difference = 1.34) than those who were lower in internalization ( $M$  difference = 1.14),  $F(1, 71) = 3.33$ ,  $p = .07$ .

### Discussion

Interestingly, Study 3 replicated the findings in Study 2, which showed that, with the exception of mood, women did not report feeling more negatively when exposed to a photograph of a thin-ideal female image than to a photograph of a pair of running shoes. These results are surprising because they do not replicate other research on body image that shows that women tend to feel more self-dissatisfied after exposure to thinness-

depicting media images than to non-thinness related media images (Heinberg & Thompson, 1995). It is possible that Study 2 and Study 3 did not replicate past findings because participants were only shown one photograph of a thin-ideal female. Showing one photograph may not have been as strong a manipulation as showing, for instance, 50 photographs of a thin-ideal female image (Thornton & Moore, 1997), or even 10 photographs (Posavac et. al, 1998).

One of the major purposes of Study 3 was to clarify the findings of Study 2. Specifically, do women feel more self-dissatisfied as a result of being weighed, or as a consequence of their upward social comparison to a thin-ideal female image? The results revealed that weighing did not seem to significantly influence women's feelings about the self. Rather, what seemed to be the impetus behind women's reports of self-dissatisfaction was the photograph to which they were exposed. Specifically, women who viewed a photograph of a thin-ideal female were more likely to experience a less positive mood than women who viewed a photograph of running shoes. Furthermore, this effect was not moderated by participants' actual BMI scores, suggesting that women experienced more negative moods after exposure to the thin-ideal female image than after exposure to the pair of running shoes regardless of their actual body mass.

Surprisingly, and contrary to predictions, women who were exposed to a photograph of a thin-ideal female also reported higher levels of social state self-esteem than women who were exposed to a photograph of running shoes. One explanation for these unexpected results is that exposure to a thin-ideal female and imagining oneself emulating her may actually give people a self-esteem boost. For instance, research on social comparison indicates that upward social comparisons may inspire people to self-

improve (Brickman & Bulman, 1977; Roese, 1994), and in fact, imagining oneself reaching a goal state may be enough to actually make it more likely that the goal state will be reached (Boninger, Gleicher, & Strathman, 1994; Nasco & Marsh, 1999; Roese, 1994). Hence, perhaps women who were exposed to an upward standard were motivated to improve themselves, and this feeling of possible self-improvement then lead to higher social state self-esteem scores.

It was further hypothesized that certain individual differences, such as associations between weight and lifestyle and internalization of thinness standards, would moderate the relationship between exposure to a photograph and mood, as well as photograph and social SSES. Interestingly, there was no significant correlation between associations between weight/lifestyle and internalization of thinness standards. These results may have occurred because the analysis may have been conducted aggregating multiple distinct populations. For instance, perhaps women's actual body mass index was a third variable that affected the results of the correlation. That is, perhaps those with heavier BMI scores believed that there was a negative correlation between associations between weight/life and internalization, and those with lower BMI scores believed that there was a positive correlation between associations between weight/life and internalization. Thus, the results would cancel each other out, and a non-significant correlation would result. Unfortunately, because Study 3 did not weigh all participants, and the sample size of those who were weighed was fairly low ( $n=40$ ), the possibility of BMI scores as a third variable remains as speculation.

Nevertheless, the prediction that associations between weight and lifestyle and internalization of thinness standards would moderate the effects of photograph on mood

and social SSES were not supported. Two explanations for these null findings appear plausible. First, the most parsimonious explanation is that the two predicted moderators were, in fact, not moderators and that there are other personality factors that may affect the relationship between exposure to physical appearance stimuli and self-satisfaction. Second, it is possible that the effects of the manipulation were so strong that the significant main effects found were consistent across levels of both weight and lifestyle associations and internalization of thinness standards.

Although these individual personality differences did not moderate the relationship between the photograph to which the participants were exposed and the dependent variables, individual personality differences did differentially affect participants' predictions of their life outcomes, depending on whether they were imagining life possibilities for the current self, thin self, or the heavy self. Namely, those with stronger associations between weight and lifestyle were more likely to experience a discrepancy between their heavier and thinner selves in terms of positive future outlook than those with weaker associations between weight and lifestyle. This pattern is reasonable, given that people with stronger associations between weight and lifestyle should expect more positive life success for thinner women. In addition, those with higher levels of internalization of thinness standards showed more discrepancies between their thinner and heavier selves when imagining their future possibilities than those with lower levels of internalization standards. Specifically, those with higher internalization scores predicted that they would experience more positive life outcomes and less negative life outcomes for themselves the thinner that they imagined themselves to be relative to those with lower internalization scores. These results suggest that people with high levels



of internalization should feel the most negatively about themselves if they believe that they are not thin, consistent with predictions.

### General Discussion

The common pattern found in these studies that comprised this dissertation project is that women tend to associate positive life circumstances with being thin, and it may be this association that, to some extent, drives feelings of self-dissatisfaction when comparing oneself to a thin-ideal female. For example, Study 1 clearly indicated that women believe that thinner females enjoy more positive life success than heavier females, even when controlling for attractiveness. In addition, Study 2 showed that when these positive life stereotypes about thin-ideal females are explicitly or implicitly confirmed, women predict more pessimistic life possibilities for themselves and report greater levels of self-dissatisfaction when comparing their own lives to that of the thin-ideal female.

Study 2 also showed that participants' predictions for their own positive future life possibilities (their cognitions about themselves) did not mediate the relationship between the lifestyle-information that they received about the thin-ideal female image and mood. However, a second mediational analyses indicated that mood was a mediator of the relationship between lifestyle information and positive life outcomes. Although the first mediational analysis seems to be more theoretically plausible than the second mediational analysis but resulted in non-significant results (whereas the second mediational analysis was significant), it is necessary that there be replication of these findings before any concrete conclusions can be drawn.

Study 3 further re-affirmed that the positive life stereotypes associated with thin-ideal females can contribute to self-dissatisfaction and the experience of negative affect. Specifically, women who had greater associations between being thin and enjoying positive life success were more cynical about their possible future life outcomes when they imagined themselves to be heavier than when they imagined themselves to be thinner relative to those with fewer associations between weight and lifestyle. This same pattern of results was also found for those with higher levels of internalization of thinness standards in comparison to those with lower levels of internalization.

Taken together, the findings of these studies suggest that self-dissatisfaction regarding one's own physical appearance can occur when one believes that thin-ideal females possess the physical attractiveness stereotype (Hatfield & Sprecher, 1986). For example, women seem to compare themselves to thin-ideal females, typically media figures, with the belief that these thin-ideal females also possess ideal lifestyles, and it is this comparison of lifestyles that may then lead to negative feelings about one's body. One may have the feeling that, "if only I could be thin like her, then I could be happy like her." Thus, the findings in the current studies show that women do not necessarily want to improve their bodies simply to improve the way that their bodies look. Instead, it is the belief that a person can also improve their life by improving their bodies that may drive women to strive for thinness.

Although these three studies suggest that women strive for an ideal body type (i.e., thinness) because they associate positive life success with this body-type, there are several limitations to this study that make these findings more tentative. First, Study 2, which showcased the findings that women feel more dissatisfied if they believe that there



is a positive association between being thin and happy, did not employ manipulation checks to ensure that participants fully believed the lifestyle information that they received. Moreover, the theoretically reasonable mediational analysis which investigated whether positive life outcomes mediated the relationship between lifestyle information and mood was non-significant. Conversely, mood seemed to mediate the relationship between lifestyle information and positive life outcomes. Because of these ambiguous mediational analyses, definite conclusions should not be drawn without additional research.

Another limitation that applies to both Studies 2 and 3, is that of demand characteristics. Namely, participants may have been aware, or became aware at some point during the study, that the research was about female body image. As such, participants may have responded to the measures in a manner consistent with how they believed they should react to a body image study. Future studies should perhaps take greater care in designing a cover story that may make it less likely that participants would come to know the true purpose of the study.

Limitations aside, there are several implications of these findings. The first is that women readily accept information that disconfirms their positive stereotypes about thin females. In fact, they are willing to accept that thin females actually have more negative life circumstances than other females. This is consistent with past research on stereotypes of the beautiful, in which people also readily believe that beautiful others have a “dark” side – one that is vain, egotistical, and self-centered (Cash & Janda, 1984; Dermer & Thiel, 1975). As such, women may happily engage in a downward social comparison with thin females who ostensibly lead unhappy lives.

The fact that women are willing to believe that there is no association between weight and lifestyle, or that there is a negative association between weight and lifestyle is an important one because it has implications for the mental health treatment of women with body image disturbances. Specifically, treatment for body image disturbances should include helping women to disassociate weight from life success. As shown in Study 2, women experience less self-dissatisfaction when their positive life stereotypes of a thin-ideal female were disconfirmed relative to when such positive life stereotypes were confirmed. Moreover, other research indicates that there is no guarantee that women will eventually become satisfied with themselves once they become thinner (Stunkard & Burt, 1967; Stunkard & Mendelson, 1967). As illustrated in one study, formerly overweight women who had lost weight continued to maintain negative thoughts and feelings about their weight and themselves (Cash, Counts, & Huffine, 1990).

Some may argue that thinner women are, indeed, happier than heavier women, and that telling heavier women that there is no correlation between weight and lifestyle may be unethical because some research indicates that heavier women do have somewhat more difficulties than thinner women. For example, obese women tend to be lower in socioeconomic status than their non-obese peers (Sobal & Stunkard, 1989), they tend to be discriminated against in the college selection process (Canning & Mayer, 1966), and when they do enter into college, obese women tend to receive less financial assistance from their parents than their male counterparts (Crandall, 1991, 1995). However, these research illustrate the difference between obese and non-obese women. For many American women, the issue is not necessarily about becoming non-obese, but about becoming thinner than they already are. Does lifestyle really undergo a seismic shift by

losing 5 or 10 pounds? Probably not. And yet, many women are obsessed with the notion of “if only I could lose 5 pounds.” Perhaps it may be unethical to inform medically obese women that there will be no difference in their lifestyles if they were to become normal-sized. However, it is in this author’s opinion that there truly is no measurable difference in lifestyle for a woman who loses 5 or 10 pounds, and indeed, there may not be a positive change. Future research may also want to address this issue. Do women actually enjoy more positive life success if they lose a nominal amount of weight?

Although Study 2 revealed that college women tend to feel more optimistic about their life possibilities when positive stereotypes about thin-ideal females were invalidated, it is not clear whether disconfirming stereotypes about thin-ideal females would be as beneficial for a different population of women. For instance, clinically depressed women, or women with eating disordered behaviors, may not be as willing to believe that there is no association, or even a negative association, between weight and lifestyle. Or, there may be a different psychological mechanism that drives the self-dissatisfaction that women from a clinical population may feel. Therefore, the results of the current studies may not be generalizable to all women. Because one application of the current research is to help foster the mental health of those with body image disturbances, it may be essential to conduct future research using the current psychological paradigm with a clinical population to see if the findings would also be relevant to them.

Additional research on body image may want to explore whether the current findings on the effects of lifestyle information on self-(dis)satisfaction would also hold

firm in domains other than weight. For example, instead of thin versus not thin, perhaps this paradigm could be employed with facial features (e.g., attractive versus unattractive faces), or physical fitness (physically-fit women versus physically unfit women).

Another avenue for future research in this area may also focus on men's associations between weight and lifestyle. As indicated by past research, men also report dissatisfaction with their physical appearance (Berscheid, Walster, & Borhnstedt, 1973; Cash, Winstead, & Janda, 1986). Although people tend to believe that men are more satisfied with their bodies than women, other research indicates that there is not such a vast body-dissatisfaction gap between women and men (Jackson, Sullivan, & Rostker, 1988; Keeton, Cash & Brown, 1990). Therefore, it may be valuable to further investigate how social comparisons to attractive same-sex others with either confirming or disconfirming stereotypic life information may affect self-satisfaction among men.

### Conclusion

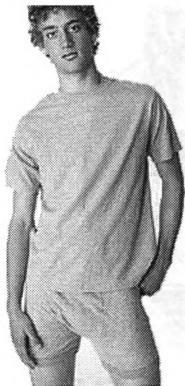
The number of people who report that they are dissatisfied with their bodies is striking and potentially alarming. A national survey on body image with nearly 30,000 respondents that appeared in the magazine, Psychology Today, revealed that 38% of women and 34% of men are dissatisfied with their looks in general, 55% of women and 41% of men are dissatisfied with their weight, and 47% of females and 29% of males classified themselves as overweight, when, in actuality, they were of a normal weight (Cash et al., 1986). One must question why so many people are dissatisfied with their appearance, and their weight in particular. The current studies allow us a glimpse into one facet of why people continue to experience self-dissatisfaction with their physical appearance and why they struggle with their weight in order to attempt to attain the ever

elusive goal of thinness. In essence, people do not strive merely to improve their physical appearance as a goal in-and-of-itself. Rather, as the present work indicates, it is also the promise of a better, more glamorous life that is waiting in the wings of a thinner self that leads people to want to improve their physical appearance, often by losing weight. In order to fully understand the psychology of body image dissatisfaction, we should move beyond focusing solely on body-dissatisfaction and move toward a more comprehensive understanding of the multifaceted role that physical appearance play in people's psychological functioning, including how body-dissatisfaction takes place within a social and cultural context.

## **APPENDICES**

## APPENDIX A

We are interested in seeing how accurate people are in predicting other people's lives. On the following pages, you will be shown several photographs and you will be asked to predict, to the best of your ability, what these people are like.



In the following space, please list 5 words that you think would describe this person:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

Presented below are statements that the person in this photograph might have made about herself. Using the following scale, indicate how likely you think each statement describes her. **Please answer every item and do not skip questions.**

1	2	3	4	5	6	7	8	9
very <b>unlikely</b>								very <b>likely</b>
to be true of her								to be true of her

(Participants were shown either the heavier woman or the thinner woman, but not both)



This person:

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| 1. buys used clothing              | 23. has the "good" life             |
| 2. is unemployed                   | 24. is admired by others            |
| 3. is energetic                    | 25. is depressed                    |
| 4. leads a dull life               | 26. does not date very often        |
| 5. is engaged to a handsome man    | 27. has a successful career         |
| 6. eats TV dinners                 | 28. is pessimistic about her future |
| 7. is intelligent                  | 29. has high self-esteem            |
| 8. does not have many friends      | 30. is on welfare                   |
| 9. is loved                        | 31. feels like a failure            |
| 10. is an alcoholic                | 32. frequently dates                |
| 11. is optimistic about her future | 33. has an abusive boyfriend        |
| 12. lives in a trailer             | 34. travels a lot                   |
| 13. drives an expensive sports car | 35. has many friends                |
| 14. is self-confident              | 36. has low self-esteem             |
| 15. is unhappy with her life       | 37. is withdrawn                    |





16. dresses stylishly  
17. is unhealthy  
18. owns a beautiful home  
19. is unloved  
20. is wealthy  
21. is liked by others  
22. does not care very much  
about herself

38. is pitied by others  
39. leads an exciting life  
40. is lonely  
41. lacks self-confidence  
42. feels like a success  
43. is happy with her life  
44. has gotten into trouble with  
the law in the past

Some of the things that the woman in the photograph reported about her life are not listed here. Can you think of anything else that might be true about her life? If so, please list them here now:

---

A) How old do you think this woman is? \_\_\_\_\_

B) Overall, how physically attractive is this woman (please circle a number)?:

1	2	3	4	5	6	7	8	9
very								very
unattractive								attractive

C) What is this woman's education level (please mark an X in the box you think describes her)?

Some high school	_____
High school diploma	_____
Some college	_____
College degree	_____
Graduate degree	_____

D) In which U.S. State does this woman reside?

---

E) How often do you think this woman tells lies (Please circle a number)?:

1	2	3	4	5	6	7	8	9
never								frequently

## APPENDIX B

### Factor Loadings for Life-Outcomes Questionnaire

Question	<u>Factor</u>		Question	<u>Factor</u>	
	1	2		1	2
sports car	<b>.80</b>	-	depressed	-	<b>.75</b>
admired	<b>.79</b>	-	feels like failure	-	<b>.75</b>
wealthy	<b>.77</b>	-	unloved	-	<b>.74</b>
travels lots	<b>.77</b>	-	abusive boyfriend	-	<b>.68</b>
attractive	<b>.74</b>	-	no friends	-	<b>.66</b>
handsome man	<b>.72</b>	-	unhappy	-	<b>.64</b>
nice home	<b>.72</b>	-	lonely	-	<b>.64</b>
exciting life	<b>.66</b>	-	alcoholic	-	<b>.63</b>
good life	<b>.65</b>	-	low self-esteem	<b>-.51</b>	<b>.61</b>
lots of dates	<b>.64</b>	-	don't care about self	-	<b>.60</b>
unhealthy	<b>-.64</b>	-	happy	<b>.46</b>	<b>-.57</b>
stylish	<b>.63</b>	-	lies frequently	-	<b>.55</b>
dull life	<b>-.56</b>	-	intelligent	-	<b>-.55</b>
feels like success	<b>.55</b>	<b>-.42</b>	lots of friends	<b>.52</b>	<b>-.54</b>
self-confident	<b>.52</b>	<b>-.43</b>	withdrawn	<b>-.41</b>	<b>.53</b>
energetic	<b>.51</b>	-	loved	-	<b>-.51</b>
lives in trailer	<b>-.48</b>	-	travels	<b>.77</b>	-
pitied	<b>-.48</b>	-	no self-confidence	<b>-.45</b>	<b>.49</b>
high self-esteem	<b>.47</b>	<b>-.47</b>	optimist	-	<b>-.48</b>
successful career	<b>.45</b>	-	liked	-	<b>-.46</b>
no dates	<b>-.41</b>	-	pessimistic	-	<b>.45</b>
welfare	-	-	law-abiding	-	-
TV dinner	-	-	attractive	<b>.75</b>	-
			unemployed	-	-
			used clothes	-	-

Note. Factor loadings below .40 represented by dashes. n=62.

## APPENDIX C

### Life Outcomes

At some point, we all think about how our future may turn out. In this questionnaire, we are interested in assessing what you think is the probability that you might experience certain future outcomes for yourself. Please think about these events carefully and answer as honestly as you can using the following scale. Although it might be tempting to just answer 5 (somewhat likely to occur) for several of the questions, please take the questions seriously and give your best guesses.

	1	2	3	4	5	6	7	8	9
	very unlikely to be true of me			somewhat likely to be true of me			very likely to be true of me		
1)	_____	I may be on welfare				17)	_____	I may live in a trailer	
2)	_____	I may lead an exciting life				18)	_____	I may have my own business	
3)	_____	I may eat TV dinners				19)	_____	I may have a nervous breakdown	
4)	_____	I may be unemployed				20)	_____	I may have lots of friends	
5)	_____	I may travel a great deal				21)	_____	I may be famous	
6)	_____	I may feel lonely				22)	_____	I may be poor	
7)	_____	I may be pursued by handsome men				23)	_____	I may own a beautiful home	
8)	_____	I may be depressed				24)	_____	I may be healthy	
9)	_____	I may be happy with my life				25)	_____	I may lead a dull life	
10)	_____	I may dress stylishly				26)	_____	I may use drugs	
11)	_____	I may be pitied by others				27)	_____	I may drive an expensive sports car	
12)	_____	I may feel like a failure				28)	_____	I may be unhappy with my life	
13)	_____	I may be a nobody				29)	_____	I may be admired by others	
14)	_____	I may be unhealthy				30)	_____	I may be a cancer victim	
15)	_____	I may have an active social life				31)	_____	I may feel like a success	
16)	_____	I may be fired from my job				32)	_____	I may be a good parent	

## APPENDIX D

### Mood

Using the following scale, please describe how thinking about the target in the photograph makes you feel about yourself right now. Please respond as honestly as you can.

-4 depressed	-3	-2	-1	0	1	2	3	4 overjoyed
-4 stressed	-3	-2	-1	0	1	2	3	4 relaxed
-4 dissatisfied	-3	-2	-1	0	1	2	3	4 satisfied
-4 unhappy	-3	-2	-1	0	1	2	3	4 happy
-4 disappointed	-3	-2	-1	0	1	2	3	4 relieved
-4 self-conscious	-3	-2	-1	0	1	2	3	4 self-confident
-4 guilty	-3	-2	-1	0	1	2	3	4 innocent
-4 ashamed	-3	-2	-1	0	1	2	3	4 proud
-4 negative	-3	-2	-1	0	1	2	3	4 positive
-4 insecure	-3	-2	-1	0	1	2	3	4 secure

## APPENDIX D

### Mood

Using the following scale, please describe how thinking about the target in the photograph makes you feel about yourself right now. Please respond as honestly as you can.

-4	-3	-2	-1	0	1	2	3	4
depressed								overjoyed

-4	-3	-2	-1	0	1	2	3	4
stressed								relaxed

-4	-3	-2	-1	0	1	2	3	4
dissatisfied								satisfied

-4	-3	-2	-1	0	1	2	3	4
unhappy								happy

-4	-3	-2	-1	0	1	2	3	4
disappointed								relieved

-4	-3	-2	-1	0	1	2	3	4
self-conscious								self-confident

-4	-3	-2	-1	0	1	2	3	4
guilty								innocent

-4	-3	-2	-1	0	1	2	3	4
ashamed								proud

-4	-3	-2	-1	0	1	2	3	4
negative								positive

-4	-3	-2	-1	0	1	2	3	4
insecure								secure



## APPENDIX E

### State Self-Esteem

This is a questionnaire designed to measure what you are thinking at this moment. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items using the following scale, even if you are not certain of the best answer. Again, answer these questions as they are true for you RIGHT NOW.

	1	2	3	4	5	
	not at all	a little bit	somewhat	very much	extremely	
1)						I feel confident about my abilities right now.
2)						I am worried about whether I am regarded as a success or failure right now.
3)						I feel satisfied with the way my body looks right now.
4)						I feel frustrated or rattled about my performance right now.
5)						I feel that I am having trouble understanding things that I read right now.
6)						I feel that others respect and admire me right now.
7)						I am dissatisfied with my weight right now.
8)						I feel self-conscious right now.
9)						I feel as smart as others right now.
10)						I feel displeased with myself right now.
11)						I feel good about myself right now.
12)						I am pleased with my appearance right now.
13)						I am worried about what other people think of me right now.
14)						I feel confident that I understand things right now.
15)						I feel inferior to others at this moment right now.
16)						I feel unattractive right now.
17)						I feel concerned about the impression that I am making right now.
18)						I feel that I have less scholastic ability right now than others right now.
19)						I feel like I'm not doing well right now.
20)						I am worried about looking foolish right now.



## **APPENDIX F**

### **Actual Selves Questionnaire Part I**

List 10 characteristics about yourself that you believe are descriptive of you (e.g., I am short, I don't have many friends, and so forth). Remember, all answers are confidential so please answer as honestly and as openly as possible.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

List 10 characteristics that you **wished** you possessed (e.g., I wish I was taller, I wish I had more friends, and so forth). Again, all answers are confidential so please answer as honestly and as openly as possible.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

## Actual Selves Questionnaire Part II

In Part I of the Actual Selves Questionnaire, you listed 10 characteristics that you believe are currently descriptive of you. Using the items that you listed for your **actual** self, please indicate how important those characteristics are to you.

Characteristic #1

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #2

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #3

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #4

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #5

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #6

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #7

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #8

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #9

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #10

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

## Ideal Selves Questionnaire Part II

In Part I of the Ideal Selves Questionnaire, you listed 10 characteristics that you wished you possessed. Using the items that you listed for your **ideal** self, please indicate how important those characteristics are to you.

Characteristic #1

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #2

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #3

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #4

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #5

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #6

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #7

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #8

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #9

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Characteristic #10

1	2	3	4	5	6	7
very unimportant	unimportant	somewhat unimportant	uncertain	somewhat important	important	very important

Using the characteristics that you listed as being **ideal**, please rate how close you are to achieving these ideals:

**Characteristic #1**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #2**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #3**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #4**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #5**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #6**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #7**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #8**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #9**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

**Characteristic #10**

1	2	3	4	5	6	7
very close	close	somewhat close	uncertain	somewhat not close	not close	not close at all

## APPENDIX G

### Body Esteem Scale (BES)

Please use the following scale to rate the physical characteristics of the media image (yourself) in front of you.

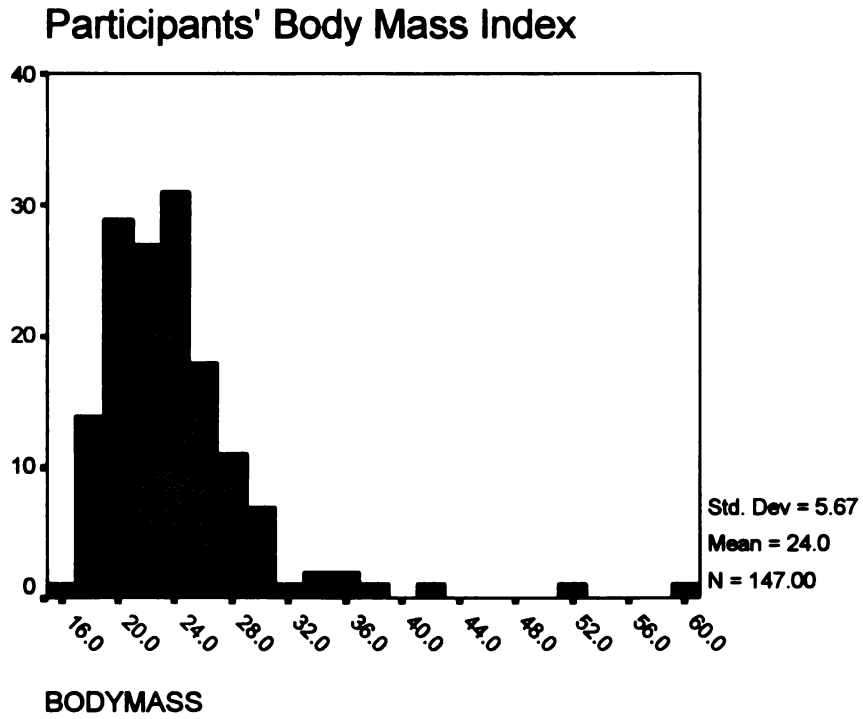
	1	2	3	4	5
	Have strong negative feelings	Have moderate negative feelings	Have no feelings one way or the other	Have moderate positive feelings	Have strong positive feelings
1) How do you feel about the woman's/your <b>nose</b> ?					
2) How do you feel about the woman's/your <b>lips</b> ?					
3) How do you feel about the woman's/your <b>ears</b> ?					
4) How do you feel about the woman's/your <b>hair</b> ?					
5) How do you feel about the woman's/your <b>chin</b> ?					
6) How do you feel about the woman's/your <b>eyes</b> ?					
7) How do you feel about the woman's/your <b>cheeks</b> ?					
8) How do you feel about the woman's/your <b>face</b> ?					
9) How do you feel about the woman's/your <b>chest</b> ?					
10) How do you feel about the woman's/your <b>waist</b> ?					
11) How do you feel about the woman's/your <b>thighs</b> ?					
12) How do you feel about the woman's/your <b>hips</b> ?					
13) How do you feel about the woman's/your <b>legs</b> ?					
14) How do you feel about the woman's/your <b>buttocks</b> ?					
15) How do you feel about the woman's/your <b>stomach</b> ?					
16) How do you feel about the woman's/your <b>arms</b> ?					
17) How do you feel about the woman's/your <b>figure</b> ?					
18) How do you feel about the woman's/your <b>weight</b> ?					

Overall, how attractive is this woman/are you?

1	2	3	4	5	6	7	8	9
very unattractive				average				very attractive

## APPENDIX H

### Histogram of Participants' Body Mass Index (Study 2)



## APPENDIX I

### Analysis of Variance for Dependent Variables By Condition (Stereotype Consistent vs. Stereotype Inconsistent) Covarying Out Body Mass Index

Variable	<u>F</u>	<u>MSE</u>
Good Life Outcomes	1.46	1.51
Bad Life Outcomes	1.08	1.19
Mood	3.90*	11.48
Appearance State Self-Esteem	1.93	1.19
Social State Self-Esteem	1.68	1.02
Performance State Self-Esteem	.29	.13
Mismatches	2.24	9248.80
Body Attractiveness	1.73	.50
Overall Attractiveness	1.31	2.40

Note. \*  $p < .01$   
df = 3, 121

## APPENDIX J

Univariate Analysis of Variance Comparing Condition by Dependent Variables,  
Selecting Out African-American Participants and Covarying out Participants'  
Body Mass Index

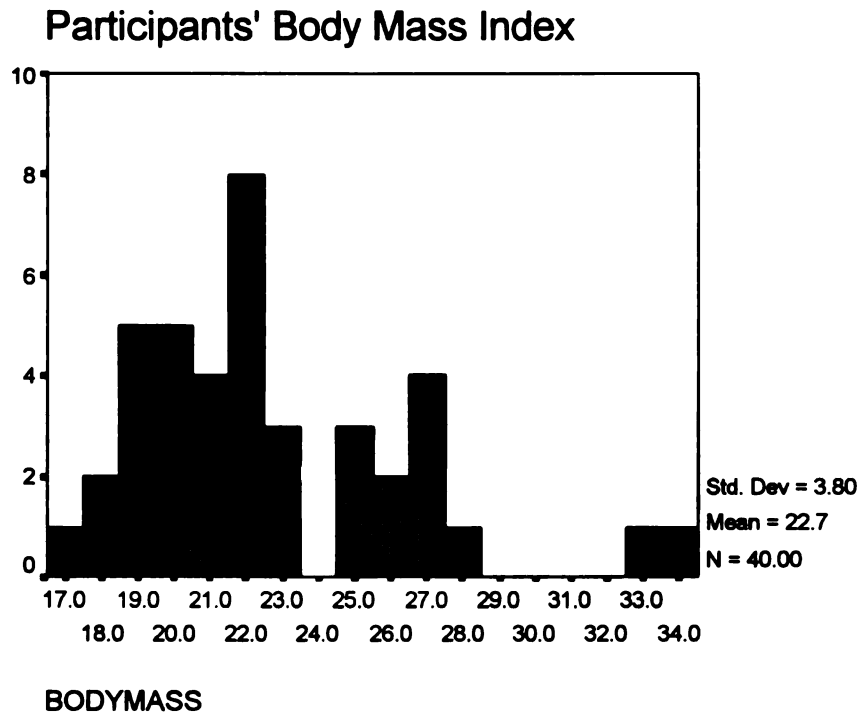
Variable	<u>F</u>	<u>MSE</u>
Positive Life Outcomes	.80	.72
Negative Life Outcomes	1.16	1.17
Mood	2.14	5.45
Appearance SSES	.90	.53
Social SSES	.90	.57
Performance SSES	.50	.23
Body Attractiveness	.56	.13
Overall Attractiveness	.40	.65

Note. df=4, 112



## APPENDIX K

### Histogram of Participants' Body Mass Index (Study 3)



## APPENDIX L

### Associations Between Weight and Lifestyle Questionnaire

Using the following scale, please indicate the degree to which you agree/disagree with the statements listed below. There are no right or wrong answers. We are only interested in assessing your honest opinions. Although it might be tempting to just answer 5 (somewhat agree) for several of the questions, please take the questions seriously and give your best guesses.

1	2	3	4	5	6	7	8	9
strongly disagree				somewhat agree				strongly agree

On average,

1. \_\_\_\_\_ People with more education watch more television than people with less education.
2. \_\_\_\_\_ Heavier women are less likely to drive an expensive sports car than thinner women.
3. \_\_\_\_\_ Northeasterners lead more exciting lives than do Midwesterners.
4. \_\_\_\_\_ People with more education are nicer than people with less education.
5. \_\_\_\_\_ Heavier women are less likely to be wealthy than thinner women.
6. \_\_\_\_\_ Northeasterners are admired more than Midwesterners.
7. \_\_\_\_\_ People with less education are more likely to have friends than people with more education.
8. \_\_\_\_\_ Thinner women are more energetic than heavier women.
9. \_\_\_\_\_ Midwesterners are more likely to be self-confident than Northeasterners.
10. \_\_\_\_\_ People with more education are more likely to live in a trailer park than people with less education.
11. \_\_\_\_\_ Thinner women lead more satisfied lives than do heavier women.
12. \_\_\_\_\_ Midwesterners are more likely to take vacations than Northeasterners.
13. \_\_\_\_\_ People with less education are more likely to be happy than people with more education.
14. \_\_\_\_\_ Heavier women are more likely to be pessimistic about their futures than thinner women.
15. \_\_\_\_\_ Northeasterners are more likely to gamble than Midwesterners.
16. \_\_\_\_\_ People with more education are more likely to drink alcohol than people with less education.
17. \_\_\_\_\_ Thinner women have healthier lives than do heavier women.
18. \_\_\_\_\_ Midwesterners are more likely to invest in the stock market than Northeasterners.
19. \_\_\_\_\_ People with less education are more likely to be happy with themselves than people with more education.

- 20. \_\_\_\_\_ Heavier women are more likely to be pitied by others than thinner women.
- 21. \_\_\_\_\_ Northeasterners have more of an “attitude” than Midwesterners.
- 22. \_\_\_\_\_ People with more education have higher self-esteem than people with less education.
- 23. \_\_\_\_\_ Thinner women are more likely to lead exciting lives than heavier women.
- 24. \_\_\_\_\_ Midwesterners are more likely to buy expensive clothes than Northeasterners
- 25. \_\_\_\_\_ People with less education are more optimistic about their lives than people with more education
- 26. \_\_\_\_\_ Heavier women are more likely to be lonely than thinner women.
- 27. \_\_\_\_\_ Northeasterners have more pets than do Midwesterners
- 28. \_\_\_\_\_ People with more education are more likely to tell lies than people with less education.
- 29. \_\_\_\_\_ Thinner women are more likely to be admired by others than heavier women.
- 30. \_\_\_\_\_ Midwesterners enjoy hunting more than Northeasterners.

## APPENDIX M

### Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ)

Please read each of the following items and circle the number that best reflects your agreement with the statement. Please DO NOT circle in between numbers.

1	2	3	4	5
completely disagree	disagree	neither agree nor disagree	agree	completely agree

- 1) \_\_\_\_\_ Women who appear in TV shows and movies project the type of appearance that I see as my goal.
- 2) \_\_\_\_\_ I believe that clothes look better on thin models.
- 3) \_\_\_\_\_ Music videos that show thin women make me wish that I were thin
- 4) \_\_\_\_\_ I do not wish to look like the models in the magazines.
- 5) \_\_\_\_\_ I tend to compare my body to people in magazines and on TV.
- 6) \_\_\_\_\_ Photographs of thin women make me wish that I were thin.
- 7) \_\_\_\_\_ I wish I looked like a swimsuit model.
- 8) \_\_\_\_\_ I often read magazine like *Cosmopolitan*, *Vogue*, and *Glamour*, and compare my appearance to the models.

## **TABLES**

**Table 1**  
**Means, Standard Deviations, Univariate Analysis of Variance and Analysis of**  
**Covariance (Partialling out Attractiveness) For Dependent Variables By Stimulus Type**  
**(Study 1)**

Variable	<u>M</u>	<u>Thin</u> <u>SD</u>	<u>n</u>	<u>M</u>	<u>Heavy</u> <u>SD</u>	<u>n</u>	<u>ANOVA</u> <u>F</u>	<u>ANCOVA</u> <u>F</u>
This person:								
Buys used clothing	2.52	1.79	29	3.03	1.81	33	1.26	1.57
Unemployed	3.14	2.29	29	2.27	1.59	33	3.04	1.77
Energetic	6.93	1.49	29	6.18	1.86	33	3.01	5.70**
Leads a dull life	2.28	1.25	29	3.18	1.63	33	5.91*	4.56
Engaged	6.52	1.64	29	5.45	1.64	33	6.48**	12.44***
Eats TV dinners	3.76	1.83	29	4.45	2.15	33	1.86	.96
Intelligent	5.69	1.93	29	7.09	1.18	33	12.21***	8.86***
Not many friends	3.17	2.12	29	3.03	1.08	33	.08	4.46*
Loved	7.34	1.84	29	7.82	1.67	33	1.13	6.59**
Alcoholic	3.79	2.04	29	2.61	1.62	33	6.50**	5.69
Optimistic	6.76	1.53	29	7.09	1.44	33	.77	3.39*
Lives in a trailer	2.14	1.57	29	3.21	1.69	33	6.64**	3.27*
Drives sports car	6.55	1.82	29	3.76	1.79	33	37.04***	19.57***
Self-confident	7.03	1.61	29	6.70	2.20	33	.46	8.24***
Unhappy with life	4.03	1.92	29	3.48	1.73	33	1.40	3.72*
Dresses stylishly	7.86	1.33	29	6.55	2.20	33	7.88**	6.38**
Is unhealthy	3.55	1.99	29	6.55	1.85	33	9.20**	17.79***
Owens beautiful home	6.66	1.59	29	5.03	1.40	33	12.68***	9.37***
Unloved	2.72	1.81	29	2.15	1.48	33	1.87	2.87
Wealthy	6.90	1.47	29	4.73	1.55	33	31.76***	16.89***
Liked by others	6.97	1.09	29	6.97	1.49	33	.00	1.11
Does not care	3.10	2.24	29	3.03	2.02	33	.02	1.04
Has the "good" life	6.41	1.90	29	5.33	1.49	33	6.27*	17.13***
Admired by others	7.66	1.04	29	5.45	1.68	33	37.15***	32.29***
Depressed	4.62	2.19	29	3.64	1.60	33	4.15*	7.01**
No dates	3.62	2.23	29	4.48	1.97	33	2.63	1.75
Successful career	6.41	1.97	29	6.30	1.21	33	.07	4.14*
Pessimistic	3.07	1.81	29	3.55	1.80	33	1.07	.99
High self-esteem	6.62	1.63	29	5.79	1.95	33	3.27	11.00***
On welfare	1.69	1.14	29	2.45	1.33	33	5.87*	2.91
Feels like a failure	3.00	1.93	29	2.97	1.51	33	.01	1.52
Frequently dates	6.59	1.82	29	5.15	1.97	33	8.77**	6.26**
Abusive boyfriend	4.17	1.85	29	2.97	1.70	33	7.08**	6.82**
Travels a lot	6.83	1.79	29	4.88	1.92	33	16.94***	12.35***
Has many friends	6.93	1.41	29	6.85	1.25	33	.06	8.47***
Has low self-esteem	3.17	1.79	29	3.76	2.03	33	1.43	9.59***

**Table 1**  
**Means, Standard Deviations, Univariate Analysis of Variance, and Analysis of Covariance (Partialling out Attractiveness) For Dependent Variables By Stimulus Type (Study 1; Continued)**

Variable	<u>M</u>	<u>Thin</u> <u>SD</u>	<u>n</u>	<u>M</u>	<u>Heavy</u> <u>SD</u>	<u>n</u>	<u>ANOVA</u> <u>F</u>	<u>ANCOVA</u> <u>F</u>
This person:								
Withdrawn	2.86	1.38	29	3.00	1.54	33	.14	1.37
Pitied by others	2.21	1.78	29	4.15	2.22	33	14.18***	13.97***
Leads exciting life	6.72	1.49	29	5.88	1.47	33	5.04*	14.21***
Lonely	4.21	2.11	29	3.88	1.90	33	.42	4.90**
No self-confidence	3.00	2.07	29	4.03	2.27	33	3.45	6.85**
Feels like a success	6.41	1.45	29	6.24	1.37	33	.23	4.16*
Happy with her life	6.45	1.59	29	6.45	1.37	33	.00	3.60*
Trouble with law	4.00	1.91	29	2.61	1.48	33	10.47**	5.29*
Lies frequently	5.48	1.12	29	4.39	1.25	33	12.90***	6.37**

Note. \*      p<.05  
 \*\*      p<.01  
 \*\*\*      p<.001  
 df=1, 61

**Table 2**  
**Means and Standard Deviations for Dependent Variables by Condition (Study 2)**

Variable:	Information Given about Female Model/Condition									
	Positive <u>n</u>		Negated <u>n</u>		Negative <u>n</u>		No Info. <u>n</u>		Control <u>n</u>	
Positive Life Outcomes	6.25	37	6.67	37	6.59	37	6.37	36	6.59	34
	(1.19)		(1.15)		(.91)		(.94)		(.62)	
Negative Life Outcomes	3.03	37	3.19	37	2.83	37	3.08	36	3.08	34
	(1.11)		(1.05)		(.96)		(1.06)		(.89)	
Mood	-.86	37	-.38	36	-.12	37	-1.18	36	.84	34
	(1.66)		(1.65)		(2.00)		(1.82)		(1.32)	
Appearance SSES	3.08	37	3.25	37	3.21	37	3.05	36	3.12	34
	(.86)		(.65)		(.83)		(.90)		(.71)	
Social SSES	3.74	37	3.89	37	3.95	37	3.75	36	3.88	34
	(.82)		(.67)		(.70)		(.91)		(.69)	
Performance SSES	3.98	37	3.87	37	3.87	37	3.86	36	3.70	34
	(.61)		(.63)		(.75)		(.69)		(.73)	
Mismatches	233.81	32	235.00	30	241.98	36	270.79	28	237.41	22
	(66.70)		(57.06)		(64.29)		(70.58)		(79.39)	
Lifestyle Mismatches	1.46	37	1.00	37	1.27	37	1.39	36	1.44	34
	(1.37)		(1.49)		(1.24)		(1.10)		(1.54)	
Body Mismatches	1.27	37	.92	37	1.05	37	1.14	36	.88	34
	(1.59)		(.83)		(.94)		(.90)		(.95)	
Body Attractiveness			3.07	37	3.00	37	2.91	35	3.00	34
	2.92	37	(.55)		(.60)		(.65)		(.60)	
	(.62)									
Overall Attractiveness			6.03	37	5.97	37	5.67	35	5.85	34
	5.65	37	(1.28)		(1.21)		(1.66)		(1.62)	
	(1.46)									



**Table 3**  
**Univariate Analysis of Variance Comparing Within Life-Style Information**  
**Conditions on Dependent Variables, Covarying out Participants' Body Mass**  
**Index**

Variable	<u>Conditions 1 &amp; 4</u>		<u>Conditions 2 &amp; 3</u>	
	<u>F</u>	<u>MSE</u>	<u>F</u>	<u>MSE</u>
Positive Life Outcomes	.16	1.11	.80	1.03
Negative Life Outcomes	.38	.52	.59	1.10
Mood	.80	2.43	2.13	2.95
Appearance SSES	.70	.65	1.05	.62
Social SSES	.22	.76	.91	.61
Performance SSES	.42	.42	.16	.46
Mismatches	2.49**	4563.10	1.22*	4129.83
Body Attractiveness	.20	.26	.95	.05
<u>Overall Attractiveness</u>	.12	2.06	.72	.29

Note. \*  $p < .05$   
 \*\*  $p < .01$   
 df = 1, 121

**Table 4**  
**Univariate Analysis of Variance Comparing Condition 4 and Condition 5 on**  
**Dependent Variables**

<b>Variable</b>	<b><u>F</u></b>	<b><u>MSE</u></b>
Positive Life Outcomes	1.60	1.08
Negative Life Outcomes	.21	.21
Mood	32.41***	80.72
Appearance SSES	1.39	.81
Social SSES	1.46	.90
Performance SSES	.27	.11
Mismatches	2.47	13724.47
Body Attractiveness	1.33	.41
Overall Attractiveness	.87	2.44
<b>Note.</b> *** $p < .001$ df=1, 48		

**Table 5**  
**Planned Comparisons Exploring Stereotype Information (Consistent vs. Inconsistent) on Dependent Variables, Selecting Out African-American Participants Covarying out Participants' Body Mass Index**

Dependent Variables	Comparison Test
	$t$
Positive Life Outcomes	1.49
Negative Life Outcomes	.69
Mood	2.43*
Appearance SSES	1.55
Social SSES	1.39
Performance SSES	.36
Mismatches	1.50
Body Attractiveness	1.38
Overall Attractiveness	1.01

\*  $p < .05$   
 $df = 112$

**Table 6**  
**Means and Standard Deviations for Dependent Variables By Photograph and Weigh (Study 3)**

	<u>Thin Female</u>				<u>Running Shoes</u>			
	weigh	<u>n</u>	no weigh	<u>n</u>	weigh	<u>n</u>	no weigh	<u>n</u>
Good Life Outcomes (Current Self)	6.43 (1.02)	20	6.24 (.85)	21	6.55 (.98)	20	6.66 (.95)	20
Good Life Outcomes (Thin Self)	6.81 (1.04)	19	6.91 (.88)	21	7.08 (.97)	20	7.09 (1.21)	20
Good Life Outcomes (Heavy Self)	4.57 (1.50)	20	4.70 (1.08)	21	4.37 (1.26)	19	5.07 (1.36)	20
Bad Life Outcomes (Current Self)	2.87 (.72)	20	3.26 (1.44)	21	2.66 (.78)	20	2.80 (.92)	20
Bad Life Outcomes (Thin Self)	2.46 (.77)	19	2.67 (1.06)	20	2.30 (.96)	20	2.29 (.75)	20
Bad Life Outcomes (Heavy Self)	4.36 (1.40)	20	4.20 (1.58)	21	4.37 (1.24)	20	3.81 (1.46)	20
Mood	-.09 (1.38)	19	-1.05 (1.33)	21	.54 (1.67)	20	.55 (1.35)	20
Appearance SSES	2.68 (.42)	20	2.32 (.49)	21	2.48 (.59)	20	2.54 (.46)	20
Social SSES	1.91 (.46)	20	1.88 (.43)	21	1.80 (.44)	20	1.59 (.30)	20
Performance SSES	2.53 (.24)	20	2.42 (.31)	21	2.37 (.34)	20	2.47 (.27)	20

**Table 7**  
**Means, Standard Errors, and Analysis of Variance for Dependent Variables By**  
**Photograph (Thin-Ideal Female vs. Running Shoes)**

Variable	<u>Thin-Female</u>		<u>Running Shoes</u>		<u>F</u>	<u>MSE</u>
	<u>M</u>	<u>SE</u>	<u>M</u>	<u>SE</u>		
Good Life Outcomes (Current Self)	6.32	.15	6.60	.15	1.60	1.44
Good Life Outcomes (Thin Self)	6.89	.17	7.11	.17	.90	.98
Good Life Outcomes (Heavy Self)	4.62	.21	4.70	.21	.07	.13
Bad Life Outcomes (Current Self)	3.09	.17	2.75	.17	2.05	2.16
Bad Life Outcomes (Thin Self)	2.59	.15	2.31	.15	1.79	1.48
Bad Life Outcomes (Heavy Self)	4.32	.23	4.10	.23	.45	.92
Mood	-.60	.23	.48	.23	11.56**	22.14
Appearance SSES	2.51	.08	2.51	.08	.00	.00
Social SSES	1.89	.07	1.69	.07	4.56*	.74
Performance SSES	2.48	.05	2.42	.07	.84	.07

Note. \* p<.05  
 \*\* p<.001  
 df=1, 72

**Table 8**  
**Means and Standard Errors of Moderator Variables (Associations Between Weight and Lifestyle and Internalization of Thinness Standards) by Photograph on Mood**

Photograph:	Associations:		Internalization:	
	Low	High	Low	High
Thin-ideal female	-.56 (.31)	-.68 (.40)	-.19 (.34)	-1.11 (.33)
Running Shoes	.43 (.35)	.55 (.33)	.93 (.31)	-.04 (.34)

**Table 9**  
**Means and Standard Errors of Moderator Variables (Associations Between Weight and Lifestyle and Internalization of Thinness Standards) by Photograph on Social State Self-Esteem**

Photograph:	Associations:		Internalization:	
	Low	High	Low	High
Thin-ideal female	1.90 (.09)	1.87 (.11)	1.78 (.09)	-2.02 (.09)
Running Shoes	1.68 (.10)	.55 (.10)	1.53 (.09)	1.92 (.10)

**Table 10**  
**Means and Standard Deviations for Dependent Variables by Associations**  
**Between Weight and Lifestyle**

	<u>Weaker Associations</u>			<u>Stronger Associations</u>		
	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>
Good Life Outcomes (Current Self)	6.49	.77	40	6.41	1.17	35
Good Life Outcomes (Thin Self)	7.03	.91	40	6.89	1.19	35
Good Life Outcomes (Heavy Self)	5.04	1.17	39	4.33	1.44	35
Bad Life Outcomes (Current Self)	2.84	.88	40	3.00	1.15	34
Bad Life Outcomes (Thin Self)	2.40	.85	40	2.50	.95	34
Bad Life Outcomes (Heavy Self)	3.92	1.37	40	4.47	1.39	34
Mood	-.12	1.32	40	-.04	1.83	34
Appearance SSES	2.51	.51	40	2.48	.52	35
Social SSES	1.80	.39	40	1.79	.48	35
Performance SSES	2.46	.27	40	2.42	.33	34



**Table 1**  
**Means and Standard Deviations for Dependent Variables by Internalization of Thinness Standards**

	<u>Less Internalization</u>			<u>More Internalization</u>		
	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>
Good Life Outcomes (Current Self)	6.36	.97	39	6.55	.99	34
Good Life Outcomes (Thin Self)	6.71	1.11	39	7.27	.91	34
Good Life Outcomes (Heavy Self)	4.90	1.34	39	4.50	1.34	34
Bad Life Outcomes (Current Self)	2.71	.97	38	3.12	1.03	35
Bad Life Outcomes (Thin Self)	2.43	.97	38	2.46	.84	35
Bad Life Outcomes (Heavy Self)	3.86	1.36	38	4.51	1.40	35
Mood	.43	1.31	38	-.61	1.69	36
Appearance SSES	2.65	.41	39	2.32	.56	36
Social SSES	1.64	.41	39	1.97	.40	36
Performance SSES	2.50	.25	38	2.39	.34	36

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