BODY IMAGE
AS A FUNCTION OF
SOCIAL COMPARISON, SELF-SCHEMA,
AND SELF-DISCREPANCY

DISSERTATION

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By

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ABSTRACT

Women who place cognitive importance on appearance are expected to have self-schemas in the domain of appearance. This study measured the extent to which women's appearance schemas affect females' mood distress, self-esteem, and self-evaluation of appearance after their exposure to attractive images of others. The impact of social comparison was expected to differ according to whether comparison targets were in-group members (similar others) or out-group members (dissimilar others). This study also measured women's level of mood distress after their exposure to attractive.

A total of one hundred twenty-five female college students at The Ohio State University participated in this study. Each subject was asked to participate in the study, which consisted of two experimental sessions during a two-week interval. The initial session was designed to identify subjects' appearance schematicity and actual-ideal self-discrepancies on appearance. The follow-up session was designed to measure subjects' responses regarding their mood, self-esteem, and self-evaluation of appearance after being exposed to stimulus photos taken from fashion magazines. Results of a multivariate analyses of variance revealed that women with high appearance schematicity exhibited more distressed mood than those with low appearance schematicity; however, the level of mood distress did not differ
according to whether they were exposed to similar or dissimilar others. Compared to women with low appearance schematicity, women with high appearance schematicity scored lower in self-esteem, evaluated themselves lower in attractiveness, and placed greater importance on their own appearances. Women with high actual-ideal self-discrepancies on appearance evaluated their own appearances lower and placed greater importance on their own appearances than those with low actual-ideal self-discrepancies.

This study revealed that the impact of social comparisons with attractive others can be biased by the extent of cognitive importance placed on the dimension of appearance. The results imply that young women placing more cognitive importance on appearance are more vulnerable to negative self-evaluation of their appearances and self in general.
To My Family
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To my God, thanks for your blessing and giving me courage to overcome trials throughout my graduate years.
VITA

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CHAPTER 1

INTRODUCTION

A growing number of body image disorders in the late Twentieth Century American society have caused many researchers as well as clinicians to focus their attention on body image. One's body image is closely related to the cultural ideal of beauty because it includes one's perception of cultural standards. In other words, culturally bound criteria of what is beautiful or attractive play an important part in the development of one's body image. This study attempts to increase our understanding of body image by examining female college students' perceptions of their bodies. In contemporary American society media images often emphasize unrealistically thin body shapes and attractive physical characteristics.

This chapter presents an overview of the importance of attractiveness in social judgments and media influence on the criteria for attractiveness, and introduces the concept of body image with a discussion of pressures for physical attractiveness among women. This introductory chapter also includes purposes and the significance of the proposed study.
The Importance of Attractiveness in Social Judgments

Since "what is beautiful is good" (Dion, Berscheid, & Walster, 1972) has been known as the halo effect in person perception, general preferences for physically attractive others have been found by a number of researchers (Abramowicz & Grady, 1991; Dion, Park, & Dion, 1990; Riggio, Widaman, Tucker, & Salinas, 1991; Ritte, Patterson, & Tubbs, 1992; Romano & Bordieri, 1989). In general, more positive traits and behaviors are attributed to physically attractive people than are attributed to unattractive people. For example, physically attractive individuals are perceived as more socially (e.g., sociable, interpersonally skilled (Dion, 1986) and intellectually competent (e.g., intelligent, successful in career, practical) (Jackson, Hunter, & Hodge, 1995), while less attractive people are often stigmatized (Eagly, Ashmore, Makhijani, & Longo, 1991).

Furthermore, physically attractive individuals are more preferred as potential dating partners than physically unattractive individuals (Riggio et al., 1991). Riggio et al. (1991) developed a hypothetical model showing relationships among various components of attractiveness. This model incorporated both the various static elements of attractiveness (i.e., facial beauty, body attractiveness, and attractiveness of dress), and the dynamic components of attractiveness (i.e., expressive and communicative abilities, perceptions of the individual). Each of the static and dynamic components of attractiveness contributes to overall attractiveness, which in turn influences favorable initial impressions and target attractiveness as a potential dating partner. Riggio et al. (1991), using undergraduate males and females, found that facial beauty and dynamic components of attractiveness were the most important contributors to overall evaluations of attractiveness, and that overall attractiveness in turn affected favorability of
impressions and desirability as a dating partner. In examining independent and combined influences of faces and bodies on judgments of physical attractiveness, attractiveness ratings increased as preratings of facial attractiveness increased from low to moderate to high conditions, and as preratings of body attractiveness increased from low to moderate to high (Alicke, Smith, & Klatz, 1986). Thus, manipulation of facial and body attractiveness revealed that both of these components independently influenced judgments of overall attractiveness. Also, facial attractiveness significantly influenced ratings of sociability, intelligence, and morality, in descending order. The higher the level of facial attractiveness the higher the level of these ratings. Body attractiveness also influenced judgments of intelligence and sociability, but no effect of body attractiveness was found for judgments of morality.

In physical attractiveness judgments made in classroom situations, teachers are found to judge attractive students more favorably on dimensions like intelligence, academic potential, grades, and social skills than unattractive students (Ritts et al., 1992). Similarly, college students' perceptions are more positive towards physically attractive professors than unattractive professors (Romano et al., 1989). On the whole, social consequences of being attractive include better opportunities or chances (a) for career success, (b) in familial and other relationships, (c) in attainment of goals, and (d) in general satisfaction with outcomes in life.

Physical Attractiveness and Social Stereotypes

Favorable and unfavorable judgments of attractive and unattractive people's appearances often lead to a stereotype, "an exaggerated belief associated with a category."
(Alport, 1954, p. 191). In other words, people's physical appearances as well as other dimensions can be categorized according to exaggerated differences, and positive or negative connotations attached to the categorization may become a social belief. Such a belief is not made on the basis of fact, yet is often used in evaluating others. Individual differences as a basis for categorization often become overtly exaggerated for our cognitive convenience (Jones, 1982). For example, people categorize beauty into a bipolar adjective, i.e., attractive-unattractive even if there can be a range of beauty.

Body weight is one of the most important criteria that individuals use in evaluating the attractiveness of others (Franzoi & Herzog, 1987); thus, overweight individuals have been the most frequent target of the negative social stereotypes. For example, in a study by Harris, Walters, and Waschull (1991), black and white male and female college students were given 18 adjectives chosen from previously identified obesity stereotypes and their approximate antonyms (e.g., lazy-energetic, ugly-attractive, and sloppy-neat). Subjects were asked to rate overweight men and women by responding to the adjectives (on a 7-point scale: 1=not at all, 7=extremely) from the general public's and their own viewpoints. An example of the questionnaire was as follows: "How are most women who are substantially overweight viewed (a) by most people in the United States" and (b) by you personally?" The social stereotype of overweight women was significantly more negative (e.g., lazier, more self-indulgent, and sloppier) than that of overweight men, even though blacks perceived overweight women more positively than did whites. Overall, female subjects indicated a greater number of social stereotypes towards both overweight men and women than did male subjects. In addition, subjects believed that although they do not, most other people have severely negative views
towards overweight or obese people. In other words, even if they have negative opinions about overweight people, they believe that their opinions are less severe than those made by the general public. In Harris, Waschull, and Walters’ (1990) study using overweight men and women, when subjects were asked to list the worst thing about being overweight, many negative attributes were listed - multiple disadvantages (33%), poor self-image (23%), clothes not fitting (14%), and looking bad (11%). On the other hand, more than half of the subjects (58%) responded “nothing” for the best thing about being overweight. A large number of people said that their weight made them less desirable and affected their relationships with the opposite sex (Harris et al., 1990). Accordingly, the great majority of the subjects blamed themselves for being overweight, felt out of control, and felt guilty for being overweight. Perhaps, because the public expression of such prejudice is socially unacceptable, overweight individuals internalize social stereotypes toward them. In 1992, Lennon’s study showed consistently favorable judgments toward individuals of smaller body size: smaller-size (size-6) models were perceived to be more competent, more comfortable to work with, and more sociable than large-size models (size-14). It seems to be undeniable that people have similarly negative opinions about overweight individuals, even though they believe the general public is to be blamed for social prejudices against overweight people.

Individuals who are influenced by standards of the cultural ideal are likely to make negative social perceptions/judgments of unattractive people. Wootey and Garner (1991) pointed out that health care professionals are no different from other individuals in endorsing stigmatized views and in evaluating people with weight problems. Negative attitudes and social stereotypes towards individuals who are overweight and obese are
likely to have undesirable consequences for individuals, particularly for women, such as dissatisfaction with their bodies (Fallon & Rozin, 1985; Rodin, Silberstein, & Striegel-Moore, 1985; Silberstein, Striegel-Moore, Timko, & Rodin, 1988) and unhealthy eating and dieting practices (Mellin, Irwin, & Scully, 1992; Rosen, 1990) as a result of falling short of the unattainable thin ideal.

Among various agents perpetuating attractiveness stereotypes, television commercials may be one of the most powerful media in shaping general knowledge of the population through repeated exposure to messages. According to Downs and Harrison (1985), advertisements for beauty products such as cosmetics and physical fitness products portrayed high rates of beauty statements (e.g., beautiful, lovely, gorgeous). However, non-appearance commercials such as food, drink, and household products also displayed a great number of beauty (1 in every 22.9 commercials) and weight statements (e.g., overweight, slim, trim waist line) (1 in every 15.3 commercials). Perhaps, today's advertisers believe that any product associated with statements about dieting and beauty is likely to sell better. Furthermore, Downs et al. (1985) found that female performers and male voice-overs delivered the greatest proportions of attractiveness messages (categorized by themes such as beauty, ugliness, and youth).

Since female performers are featured as active agents for attractiveness stereotypes, the general population including children and adolescents may acknowledge that attractiveness is more important for women than men. If advertisers and marketers insist that media images do not actively shape attractiveness stereotypes, it is reasonable to say that reflective images of cultural ideals in the media at least confirm social stereotypes concerning appearance.
Pressure for Physical Attractiveness

Women are under more pressure to be beautiful or attractive than are men (Mazur, 1986) and this is closely related to the fact found by many researchers as well as clinicians - more women than men are known to suffer from negative evaluations and assessments of body image (Beuf, 1990).

Most people are not born with the ideal body size and shape and most women in this society are not able to attain the cultural ideal of female beauty represented by physical attractiveness and thinness (Wolf, 1991). In other words, the cultural ideals of female beauty may only realistically be achieved by a small percent of women. Perhaps the cultural ideals may be attained most often by young women who strive to modify their physical characteristics using a variety of products (e.g., clothing, cosmetics, accessories), services (tanning salons, hairstyling), exercises (e.g., aerobics, running), and plastic surgery (e.g., liposuction, breast implants). As a consequence, there is an increasing trend toward dissatisfaction with their bodies (Cash & Henry, 1995; Cash, Winstead, & Landa, 1986; Franzoi et al., 1987; Jackson, Sullivan, & Rostker, 1988) and an increasing tendency of dieting among women (Polivy, Garner, & Garfinkel, 1986; Stein & Fiola, 1990). Since women in general are concerned with their body weights due to the social pressure to be thin, most women desire to lose weight, even when they are not overweight and do not perceive themselves to be overweight (Connor-Greene, 1988; Silberstein et al., 1988). Thus, dieting has become a fashion in contemporary U.S. society, often to a point at which people pursue thinness sometimes without concern for their health. According to Cash, Wood, Phelps, and Boyd (1991), the more occupied a
woman is with her overestimation of her weight and a fear of being fat, the greater is her risk of body dissatisfaction, disordered eating behaviors, and depression.

**Body Image as a Multidimensional Construct**

Body image is a mental image that one holds of one's body (Truax & Orbach, 1964), an internal representation of one's own physical appearance (Garner & Garfinkel, 1981), or one's attitudes about one's own body, particularly its appearance (Cash & Pruzinsky, 1990b). Berscheid, Walster, and Bohnstedt (1973), in their study, found that body image is an overall sense of one's appearance as well as specific reactions to parts of one's body (p. 120).

Body image consists of perceptual and attitudinal dimensions. The perceptual dimension refers to what one sees, whereas the attitudinal dimension refers to how one feels about what she sees. The attitudinal dimension consists of body image evaluation (e.g., body satisfaction/dissatisfaction) and body image investment (i.e., how important the domain of appearance is to oneself) (Cash, 1994). The perceptual aspect of body image determines appearance evaluations even if body perceptions are not based on objective criteria. In a study by Cash and Hicks (1990a), for example, there were normal-weight subjects who labeled their weight as overweight and normal-weight subjects who labeled their weight as normal. As the attitudinal dimension of body image, normal-weight subjects who labeled their weight as overweight evaluated their appearances more negatively than normal-weight subjects who labeled their weight as normal. Compared to the latter group of people, the former group reported anxiety about being fat, current dieting, and more frequent restrained and binge eating. Thus,
“overweight” can be a state of mind, as normal-weight or even below normal-weight individuals may label themselves as overweight. These individuals are likely to be dissatisfied with their bodies and to show restrained eating behaviors.

Body Image as a Cognitive Structure

Individuals process information using their cognitive structures, which reflect and are influenced by individual feelings, thoughts, and attitudes (Markus & Zajonc, 1985). Cognitive structures are organizations of stored information that influence how we perceive and make judgments about stimuli (Markus et al., 1985). Therefore, body image as a complex construct encompassing one’s cognitions, emotions, and actions regarding one’s body (Cash et al., 1990b) can be understood as a cognitive structure, a mental representation of information concerning one’s body (Altbeke & Thompson, 1996). The extent to which individuals are satisfied or dissatisfied with their bodies in relation to idealized images may be dependent on how important the domain of physical appearance is to individuals (i.e., its centrality, importance, and self-relevance). For example, when appearance is less important than other areas of interest, body evaluations may be positive even if one’s physical attributes do not match cultural standards of physical appearance.

According to Bloch and Richins (1992), those who pay greater attention to their appearance are more likely to use adornments to enhance themselves. Individuals are known to have generalized knowledge structures, of so-called schemas (Neisser, 1976), on particular domains based on their past experiences. In particular, when the generalization is derived from the processing of self-related information, it is called,
"Self-schema" (Markus, 1977): For those who have self-schemas in the domain of appearance, enhancing appearance may be an important part of their thoughts, emotions, and behaviors. Since criteria for the cultural ideal of female beauty are narrowly set at high standards, most women are likely to feel a discrepancy between the actual appearance that they currently possess and the ideal appearance that they wish to possess. Almost all individuals are likely to have discrepancies between their actual and ideal appearances to some extent; however, high discrepancy is expected for those who consider the domain of appearance important.

**Purposes of the Study**

Much body image research has focused on body size estimation (Falcon et al., 1985; Thompson & Altabe, 1991) and concerns about body parts and weight (Cash & Brown, 1989; Fanzo & Shields, 1984; Thompson & Heinberg, 1992), or body satisfaction/dissatisfaction (Cash, Dawson, David, Bowen, & Galumbeck, 1988; Cash et al., 1986; 1995a). Little research in body image has focused on individuals' moods as immediate responses; thus, this study will focus on affective aspects of body image in relation to ideal images of others. This study is intended to investigate, in American college women, the following: (1) whether there are relationships between exposure to attractive comparison targets and body image; (2) if there are any relationships found between attractive comparison targets and body image, how different they are as a function of similar and dissimilar comparison targets; (3) whether there are relationships between appearance schematicity and body image; and finally, (4) if there are any relationships between exposure to attractive comparison targets and body image, how
different they are as a function of the schematicity of the comparator. These questions will be examined by an experimental study involving two main procedures. First, subjects will be blocked into those who are schematic toward appearance and those who are not schematic toward appearance. Second, subjects will be randomly assigned to either similar or dissimilar comparison targets.

The central premise of this research is that the extent to which appearance is generalized as an important part of individuals' self-cognition can affect their body perceptions, which in turn influence their appearance evaluations differently when they are exposed to ideal images. Furthermore, the extent to which appearance is generalized in their cognition also influences individuals' self-discrepancies in the domain of appearance. Individuals often have discrepancies between their actual and ideal or ought appearances and those discrepancies may induce negative emotions (e.g., depression, anxiety, anger).

Significance of the Study

The significance of this research lies in the fact that it contributes to a better understanding of body image, particularly negative body images that individuals form in response to internalized ideal images, from the individual as well as the sociocultural level. Self-schemas and self-discrepancies that arise from individuals' self-cognition constitute individual differences, whereas social comparison along the dimension of appearance is a sociocultural factor since individuals compare themselves to one another to assess status relative to cultural standards of ideal beauty often perpetuated by media images. This study uniquely integrates these individual and sociocultural factors, as they
both play critical roles in shaping one's body image. Body images are measured in various forms, including measuring individuals' moods as an affective component. However, no published research has attempted to measure individuals' affective aspects of body image after being exposed to ideal images, even though this may be a common situation individuals face on a daily basis. More importantly, although they have been used as variables in separate studies, no other research has jointly examined social comparison, self-schema, and self-discrepancy within one study. This study takes factors from both individual and sociocultural levels into account in understanding individuals' body images.

Since the research employs a group of female college students as subjects, this study is especially valuable in understanding young women's body perceptions, at a time in their lives when they have the greatest interest in their appearances. Most women at this age are expected to feel vulnerable to fears of falling short of cultural standards of female beauty, especially those who are schematic regarding appearance. Women in the college-age range are often the primary consumer targets for beauty and fashion businesses, so that avoiding attractive images in various media is almost impossible in daily life. Since it is not known how much attractive images in media influence young women's mood at vulnerable ages, this study further contributes to our understanding of the relationship between media images and body images.

In sum, the current research contributes to the following important areas: (1) understanding of body image from the individual level; (2) understanding of body image from the sociocultural level; (3) understanding of body image from affective consequences; (4) understanding of media influences on body image.
Definitions of Terms

Dress – an assemblage of modifications of the body and/or supplements to the body recorded by all the senses (Roach-Higgins & Eicher, 1992). However, it does not include features of the undressed body in its natural state such as its form, color, and expression.

Body Modifications – transformations of hair, skin, nails, muscular/skeletal system, teeth, and breath. For example, tattooed skin, pierced ears, permanent waved hair, scented breath

Body Supplements – items added to the body as supplements. For example, garments, jewelry, accessories, and others. They can be classified into categories of enclosures, attachments to body, attachments to body enclosures, and handheld objects.

Appearance – a subset of dress that is visible as a total look including the body, body modifications and body supplements. Body modifications and supplements of appearance refer to those recorded by sight alone.

Body - composition of multiple physical characteristics. It can be categorized into two types of characteristics (Bloch et al., 1992).
- Inherent (unchangeable) characteristics: height, bone structure
- Mutable characteristics: grooming, body weight, gestures

Social Comparison – the process of thinking about information—whether real or constructed—with respect to the self (Wood, 1996, p. 525). Two basic kinds of comparisons are:

(a) upward comparisons—the making of comparisons with others who are superior or better off in some ways (Wheeler, 1965)
(b) downward comparisons—the making of comparisons with others who are inferior or less fortunate than oneself (Wills, 1981).

Gender-Role Ideology — socially expected behaviors for each sex based on gender stereotypes and gender-related attitudes.

Self-Schema — generalized information about the self as the domain of importance. One is schematic for a domain if one judges the domain to be highly self-descriptive and important for overall self-evaluation.
CHAPTER 2

REVIEW OF THE LITERATURE

This chapter discusses the relevant literature pertaining to the dissertation topic.

Gender Differences in Body Image

Contemporary America is an individualistic culture—i.e., individuals are believed to be responsible for what they do and for what they control (Markus & Kitayama, 1991). Thus, most people in America may have a distinctive individual identity rather than identifying themselves as members of groups. To achieve a desirable identity, individuals are highly competitive with respect to accomplishments and abilities and try to present themselves with a socially-valued physical appearance relative to each sex. Society still places a greater emphasis on the appearance of women than on that of men in establishing their identities; for this reason, women are often evaluated by their physical attractiveness (Locher, Unger, Sociedade, & Wahl, 1993; Timko, Striegel-Moore, Silberstein, & Rodin, 1987) rather than by their abilities or achievements (Drogoz & Levy, 1996). Also, unattractive women who are equally qualified with unattractive men are more likely to be discriminated against in many situations (Freedman, 1986).

Women, in general, have a more negative body image than men (Cash et al., 1986; Fallon et al., 1985; Franzoi, Kessenich, & Sugrue, 1980) due to the familial, social,
and cultural pressure to closely approximate ideal images. That women are more socialized to please others by their physical appearances than men (Jackson, 1992), that women receive more messages for beauty products and diets than men (Wiseman, Gray, Mosimann, & Ahrens, 1992; Wocley et al., 1991), and that women are more evaluated by their attractiveness than men (Spencer & Taylor, 1988) all seem to be related to the fact that more women than men are dissatisfied with their bodies. For example, in one study, a strong gender difference was found for desired body weight and size: men generally wanted to gain weight and become heavier, whereas women wanted to lose weight and become thinner (Silberstein et al., 1988).

This gender difference was also reflected in body image distortion within a nonclinical population using the individual difference factor: field dependence and field independence (Gendebien & Smith, 1992). According to Wikkin and Goodenough (1981), field dependence-field independence is a bipolar dimension of cognitive style that influences one's perceptions and behaviors. While field dependent individuals are known to be susceptible to social influence, field independent individuals are known to be unconcerned about social norms. Thus, Gendebien et al. (1992) examined whether field dependent men and women are more likely than field independent men and women to rely on the societal ideal in evaluating their own bodies in the context of socially reinforced media ideals. Women perceived their bodies, especially the lower half, to deviate from the societal ideal for female size (slim), while men perceived their size to be more consistent with the ideal male size (broad). Similarly, men exhibited greater satisfaction with their bodies than did women. Furthermore, field dependent men rated their upper body as slightly smaller than normal while rating their lower body as normal.
in size, while field independent men rated both upper and lower body as normal. Both field dependent/independent women perceived their lower bodies to be larger than they are, with a greater discrepancy for field dependent women. Thus, field dependence/independence is related to men’s, but not women’s body satisfaction.

Gender differences in body image are not only found among adults but also among children and adolescents (Adams, Katz, Beauchamp, Critien, & Zavis, 1993; Allgood-Merten, Lewis-Sohn, & Hops, 1990; Cohn, Adler, Irwin, Millerstein, Kegeles, & Stone, 1987; Thelen, Powell, Lawrence, & Kuhner, 1992). Studies show that male children and adolescents are more satisfied with their appearances and body weight than are female children and adolescents. For example, in one study second-, fourth-, and sixth-grade boys and girls were given a questionnaire containing measurements about body image concerns and eating behaviors (Thelen et al., 1992). Compared to second-grade boys and girls who were about equally dissatisfied with their bodies, more sex differences in body satisfaction were found among fourth- and sixth-graders. That is, girls were more concerned about being or becoming overweight, indicated a greater desire to be thinner than their perceived body sizes, and engaged in more dieting behaviors than boys. In addition, there was an age difference in body satisfaction: fourth- and sixth-grade girls were more dissatisfied with their bodies than were second-grade girls. In a study using junior and senior female high school students (Kaplan, Busner, & Pollack, 1988), a positive relationship was found between adolescent depression and body size: normal and overweight female students were more depressed than underweight females. Overall sex differences found among children and adolescents as well as adults indicate that appearance is valued more highly in females than in males.
at every stage of our life. As a consequence, females tend to perceive/evaluate their bodies more negatively than do males.

It is important to note that the ideal body image held by children and adolescents is not a creative image that they generate on their own, but rather an image constructed from familial, social, and cultural factors. More importantly, the development and/or maintenance of body image among children and adolescents may pre-shape the body image of their adulthood. There are multiple variables that influence individuals' body images, and they are discussed as developmental and sociocultural factors in the following section.

Developmental Factors Affecting Body Image

Maturational Status

A growing number of studies (Adams et al., 1993; Brodie, Bagley, & Slade, 1994; Thelet et al., 1992) confirm that the more advanced pubertal levels are associated with more negative body images in females than in males. Adams et al. (1993) found that eighth- and twelfth-grade females endorsed a thinner ideal for their ideal body size and were more dissatisfied with their perceived body size than fifth-grade females. In a study by Brodie et al. (1994), the mirror distortion enabled subjects to look fatter and thinner by gradual correction, and preadolescent (mean age of 9.3) and postadolescent girls (mean age of 14.1) were asked to choose their actual body size and ideal body size. Although both preadolescent and postadolescent girls wanted to look thinner than they actually were, the postadolescents showed more distinguishable differences between their
perceived actual body size and desired ideal body size. Overall, compared to adolescent girls who showed less discrepancy between their actual and ideal body sizes, those who showed more discrepancy were more dissatisfied with their bodies.

These studies clearly show that an increase in age is associated with a decrease in body satisfaction among children and adolescent girls. It is known that society holds different ideas for the ideal body shapes of men and women. Boys are encouraged to gain weight while girls are under pressure to have a thin body. Females go through biological changes, which are incompatible with the thin ideal, during puberty, and social pressure for thinness seems to increase with age as their bodies begin to change. Consequently, post-puberty adolescent girls may feel more discrepancy between their perceived actual and desired ideal bodies than pre-puberty adolescent girls. Thus, the examination of maturational timing (early, on-time, or late maturation in adolescence) of the developmental stage may be important to elucidate the impact of physical changes on adolescents' body images and psychological problems associated with their body images.

Negative Verbal Commentary and Teasing Regarding Physical Appearance

A number of studies (Cash, 1995; Cash et al., 1986; Fabian & Thompson, 1989; Levine, Smolak, & Hayden, 1994; Reives & Cash, 1996; Stormer & Thompson, 1996; Thompson, Fabian, Moulton, Dunn, & Altbe, 1991) found that greater appearance-related teasing and criticism during childhood were significantly associated with a more negative body image in adulthood. For example, Cash (1995), studying college women, found that more than 70% of the subjects reported appearance-related teasing/criticism experiences. Facial characteristics and weight were reported to be the most frequent faci
of teasing/criticism, and the most frequent perpetrators of teasing/criticism were reported in the order of peers in general, friends, brothers, and mother. In examining the impact of teasing/criticism on body image, the more frequent experiences of teasing/criticism were significantly associated with the more negative current body-image evaluations and affect. In a similar study, Reves et al. (1996) found that female college students’ current body images were significantly correlated with teasing/criticism concerning appearance during childhood as well as their perceptions of their mothers’ own attitudes toward their bodies. Consistent with the results found by Cash (1995), features of face and head (45%) and weight (36%) were the most teased about physical parts and peers in general (62%), friends (47%), brothers (41%), and mother (30%) were regarded as the most frequent perpetrators.

Parents’ perceptions of their children’s bodies can be critical in establishing children’s body images, since parents are the primary agents in children’s socialization. According to a survey using parents of a child between the ages of 2 years and 16 years (Striegel-Moore & Kearney-Cooke, 1994), evaluations of their children’s physical appearance, eating habits, and exercise behaviors were the most positive among parents with the youngest children. In other words, parents’ evaluations were the most favorable for their preschool age children’s physical appearance with regards to giving highest levels of praise and lowest levels of criticism, and were less favorable for grade-school age children who were still rated more favorably than children of adolescent age.

Among parents, mothers seem to be more critical in evaluating their children’s appearances than fathers as they were more frequently regarded as a perpetrator of appearance-related criticism (Cash, 1995). Reves et al. (1996) found that children’s
attitudes toward their bodies were related to their perceptions of their mothers’ own body satisfaction. For example, there were significant correlations between high-school girls’ eating attitudes and their mothers’ dieting behaviors (Paxton, Wertheim, Gibbons, Szmukler, Hillier, & Petrovich, 1991; Pike & Rodin, 1991). Children are more likely to model mothers’ behaviors than those of fathers, since mothers tend to spend more time with their children in the household, especially when children are very young. They are also likely to play a critical role in children’s physical development through the preparation of foods.

Sociocultural Factors Affecting Body Image

The Cultural Ideal of Beauty and Appearance Management Behaviors

Culture plays a critical role in shaping ideas about beauty and attractiveness, because every human being is culturally embedded in terms of how one values and views things. Culture is likely to influence how one perceives oneself, including one’s body within the cultural background. Therefore, what is considered beautiful and attractive is often narrowly defined by one’s culture. In other words, a culture in which one lives has certain ideal standards of beauty that members of the culture, and individuals are socially encouraged to follow those standards, just like other social practices. For example, some African societies (e.g., Nigeria) consider a plum-shaped body as beautiful, whereas many other Western (e.g., America) or Westernized Eastern (e.g., Japan, Korea) societies consider a thin body as attractive. At one point in time traditional Western society preferred a curvaceous plum-shaped body for women, as represented by Venus.
However, there has been a shift toward an idealization of thinness from the early 1960s (Poiny et al., 1986). The one thing in common among women regardless of their cultural backgrounds, however, may be that they want to present themselves at their best by emulating their cultural ideal.

The ideal female body size in the American media of the late 20th century has become thinner over time (Garner, Garfinkel, Schwartz, & Thompson, 1980; Morris, Cooper, & Cooper, 1989; Wiseman et al., 1992). The present emphasis is on extremely thin ideals. For example, by examining the female body presented in Playboy magazine and the Miss America Pageant over a 20-year period (1959-1978) (Garner et al., 1980) and over a 10-year period (1979-1988) (Wiseman et al., 1992), a significant decrease in body weight was found among the ideal images. The shift toward a thinner body size over time was accompanied by an increase in height and waist size and a decrease in bust and hip size, creating less curvaceous and more tubular body shapes (also shown in fashion models over the period of 1967-1987, Morris et al., 1989). Images of physical attractiveness presented in many features of the media (e.g., magazine models, TV characters, movie players) have consistently become slimmer compared to those in prior decades (Silverstein, Perdue, Peterson, & Kelly, 1986). Even if there is not sufficient evidence to say that images in the media contribute to individuals’ negative perceptions of their body size/weight, individuals’ increasing desires and efforts with respect to dieting seem to reflect awareness/internalization of extreme idealization of thinness in the media. Garner et al. (1980), using the data from population norms published by the Society of Actuaries in 1959 and 1979, found that there was an increase in average weight of women under 30 in age ranges of 17-19, 20-24, and 25-29. Overweight rates
of young adult women aged 20 to 29 steadily increased between 1960-62 and 1988-91, while those of young adult men remained stable (see Dortch, 1997). Thus, if actual body sizes for women today are on the continuum of increasing overweight rates, they may be further away from ideal body sizes, which may in turn account for why so many women today desire to be thinner.

Individuals in a society engage in appearance management behaviors to present themselves in a socially desirable way to others according to cultural standards of ideal appearance. Due to experiencing more social pressure than men, women constantly try to approximate cultural standards of beauty by adorning themselves with beauty-enhancing products such as apparel, accessories, cosmetics and other grooming products (Bloch et al., 1992), or by changing their body forms and shapes through exercise or dieting (Polivy et al., 1986). It is also interesting to note that over the time during which the ideal body size has decreased, there has been a significant increase in diet articles (Garner et al., 1980; Wise et al. 1992) and in exercise articles in six popular women’s magazines (Wise et al., 1992). According to Twelson (1992), physical attractiveness is a stigma such that “to the extent that the beauty model defines and values the woman through her appearance, it doubly situates her in a stigmatized position: (a) she is evaluated according to an idealized criterion she usually falls short of and is ultimately destined to transgress, and (b) her natural, bare, and uncontrolled body is unacceptable, like a stigma—something to disguise, to improve, to control” (p. 295). Individuals’ appearance management behaviors may be reinforced by comparisons with appearances of others in interpersonal relationships as well as with media images.
**Media Influences on the Criteria for Attractiveness and Body Image**

Media images seem to play a critical role in shaping the cultural ideal of beauty and attractiveness, especially through advertising, retailing, and the entertainment industry in television, movies, billboards, and magazines. On the one hand, images of people portrayed in the media may reflect the images currently prevalent in society; on the other hand, it is also obvious that media are powerful instruments in shaping the general images of the physical appearance held by the members of a society. Although there are no perfect criteria that people can use to judge the attractiveness of other people, a uniform standard of beauty was made possible by the rise of mass media (Mazur, 1986). Moreover, standards of beauty for women showed changes over the course of time by focusing on different parts of the body (e.g., slender legs in the 1920s, bust in the 1960s, thin body shape in the 1980s) (Mazur, 1986). Thus, the constructed images of attractive models in the omnipresent media may influence our general criteria for evaluating attractiveness to a considerable degree and elevate our standards for attractiveness (Martin & Kennedy, 1993; Richins, 1991). For example, compared to subjects who saw advertisements with no female models, those who saw the same ads with attractive models rated stimulus females of average looks as having lower levels of physical attractiveness (Richins, 1991). Female models in media are much thinner than the average female, as they weigh about 23% below the average woman's weight (see Freedman, 1986).

Media images seem to be particularly important contributors in reinforcing thinness and other attractive physical characteristics in America as well as many other contemporary societies, since attractive people are featured through characters in
television or movies as good and as having opportunities they deserve. For example, in
the media it is mostly beautiful people who are happy, successful, and loved by good-
looking members of the opposite sex. Ever children as young as 4 to 5 years old begin to
hear stories (e.g., Snow White, Cinderella) that match badness and goodness with
ugliness and beauty, respectively (Adams, 1985). The media’s portrayal of independent
and high-achieving women in our culture as thin may also contribute to women’s desire
for thinness (Steiner-Adair, 1986). That female bodies are moving toward thinner ideals
in the media (Mazur, 1988) may compel women to exert much more effort to resemble
those body shapes and sizes. For instance, women in later periods of the 20th Century are
more dissatisfied with their bodies and want to lose more weight than those in earlier
periods (Morris et al., 1989; Silverstein et al., 1986; Wiseman et al., 1992). Beauty
industries such as cosmetics, diet foods, plastic surgery, and the fashion business have
expanded their economic investments and emphasized the need to control appearances
(Bull & Rumsey, 1988). Perhaps this is because there is increasing dissatisfaction with
their bodies among females due to increasing demand for the thin body size. For
example, female college students exhibited increased negative feelings and body
dissatisfaction after their exposure to ultra-thin models (Stice & Shaw, 1994).

The fashion and beauty industries appeal to female consumers to use their
products by presenting attractive images (e.g., young, slim, and attractive models with
flawless skin) through advertisements. For example, a model with beautiful facial
features and flawless skin is featured next to scripts such as, “A new sensation in wearing
makeup. Covers flawlessly, perfectly, intelligently.....So you always feel beautiful,
without ever feeling made up.” It is clear that advertisements with attractive images
suggest that consumers will become like the ideal if they use the advertised products. In doing so, media imagers may encourage women to internalize “attractiveness” as an important quality of femininity (Väärä & Key, 1993). McKinley and Hyde (1996) proposed that women who internalize cultural standards for the ideal female body, which are impossible to realize fully, may feel shame not only about their bodies but also about their identities. In their study, those subjects whose personal standards were most like the established cultural standards had higher body shame than those whose personal standards did not reflect cultural prescriptions for appearance. Thus, body shame is an effective measure of internalization of cultural standards for appearance. Furthermore, Levin, Smolak and Hayden (1994) found that approximately 60% of middle school girls (grades 6 through 8) read at least one fashion magazine - Teen, Sassy, Young Miss, Seventeen, Model, Glamour, and Vogue - regularly. Those girls also considered fashion magazines an important source of information and ideas about an attractive body shape and dieting and exercise as means to obtain the ideal body shape. Although it is hard to predict what causes what, the extent to which the girls reported magazines as an important source of information for their appearances was correlated with the degree of investment in thinness, weight management behavior, and disturbed eating (Levine et al., 1994).

According to Shaw and Waller (1995), comparisons made with media images through indirect contact such as looking at magazine photos are likely to encourage women to use those images as reference points in evaluating their own bodies. A greater dissatisfaction with weight and body image in women (Rodin et al., 1983; Seim et al., 1990) may result from those comparisons. Rudd and Lennon (1994) proposed that when
the perception of one's own body matches internalized cultural standards, one may have increased self-esteem and positive attitudes towards one's own body. On the other hand, when self-perceptions of the body do not match these standards, one may have decreased self-esteem and negative attitudes towards one's own body. In fact, many researchers (e.g., Cash, Cash, & Butters, 1983; Irving, 1990; Richins, 1991) have examined the impact of media on body image and evaluation of attractiveness; these studies will be discussed later in this chapter.

Media images are likely to be highly attractive not only because attractive images are pleasant, but also because recipients of a message are more likely to be persuaded by physically attractive than physically unattractive communicators or message sources (Chaiken, 1986; Chaiken & Eagly, 1983; Kamins, 1990). For example, for the attractiveness-related products (e.g., luxury car), an attractive celebrity (e.g., Tom Selleck) was rated (a) as a more credible spokesperson and (b) as creating a more positive attitude toward the ad than use of an unattractive celebrity (e.g., Telly Savalas) (Kamins, 1990). Lennon and Clayton (1992) found that the fashionability of garments was influenced by the age and body type of the models to a greater degree than by innovative styling features of the garments. Garments worn by young and smaller size models were rated as more fashionable than those same garments worn by older and larger size models. Due to their effectiveness, marketers, especially those in the fashion and beauty industries, may continue using slender young models in promoting their products as long as there is the idealization of thinness.
Gender Role Ideology

Differences in criteria used to evaluate physical attractiveness for each sex (Franz et al., 1987) and significant differences in body perceptions of men and women (Cash et al., 1986; Fallon et al., 1985) underscore different gender roles in society as a whole. As with appropriate behaviors for each sex, gender roles are socially and culturally defined. Appearance management behaviors may be gender-role specific.

Lennon and Rudd (1994) found that compared to college women holding traditional attitudes toward gender roles, those with nontraditional attitudes toward gender roles had higher levels of self-esteem. However, those women with traditional and nontraditional attitudes toward gender roles showed no differences in body dissatisfaction or in the frequency of particular appearance management behaviors. Lennon and Rudd suspected that regardless of their attitudes toward gender roles, young college women with their heightened interest in romantic relationships are likely to consider appearance as an important part of their lives. In examining a relationship between feminist ideology and body satisfaction, Mintz and Betz (1986) found no relationship between general measures of feminist orientation and body satisfaction. However, a study by Dionne, Davis, Fox, and Gurevich (1995) found feminist attitudes towards physical attractiveness were negatively related to body dissatisfaction, although there was no relationship between overall feminine ideology and body satisfaction. Thus, relationships between gender ideology and body image may be a function of the measures used.

According to American cultural myth, men should have power and women should have beauty (Freidman, 1986). For example, men are often evaluated by their social
status, whereas women are evaluated by their looks. Awareness of socially desired roles for each sex is not limited to adults alone, but children also seem to be aware early in their lives of different behavioral orientations according to gender roles. For example, Flannery-Schroeder and Chrisler (1996), using first (6-7 years old), third (8-9 years old), and fifth (10-11 years old) graders, found that gender-role orientation for boys and girls was quite different regardless of grade. The girls scored higher on the femininity scale than did boys and the boys scored higher on the masculinity scale than did girls. In examining children’s body-esteem, which includes items such as “I like what I look like in pictures,” “My weight makes me happy,” and “My classmates would like to look like me,” the first and fifth graders had the highest and lowest body-esteem, respectively. Many children were concerned about eating and becoming fat and wanted to be thinner, even though only a few of them were actually overweight. The proportion of children who believed that they should be on a diet increased with their grade level (one quarter of all first graders, one third of all third graders, one half of all fifth graders). A prediction that more feminine children would be more concerned about eating and weight, and report more disordered eating, was not supported even though the direction of the correlation was as predicted. This study implies that one’s body image may be established at an early age since children as young as 6 or 7 years old already show dissatisfaction with their bodies and a desire to be thinner by means such as dieting. Perhaps, children learn about dieting behaviors from adult family members, particularly mothers (Reves et al., 1996) and advertisements in the media.

Members of society are likely to learn the segregated behavioral patterns for each sex embedded in their culture, including appearance management behaviors. According
to segregated gender roles imposed by society, it is seems clear that women feel more pressure to conform to socially desirable ideals of beauty than men. In fact, Martz, Handley, and Eisler (1995) found a relationship between feminine gender role stress and disordered eating: stress from a traditional feminine gender role was reported to be higher in women with disordered eating than those without disordered eating. Perhaps, women who hold traditional views toward gender roles are more likely to worry about their appearance and being thin than those who hold nontraditional views toward gender roles. Consequently, the former group of women may seek means (e.g., disordered eating) to attain standards of beauty represented by thinness even if those means can be detrimental to their health. Feminist theorists (Steiner-Adair, 1986; Striegel-Moore, Silberstein, & Rodin, 1986) agree with this by proposing that women who internalize and endorse cultural norms and gender roles may be more susceptible to eating disorders. For example, Chaiken and Pliner (1987) found that a woman who ate a small meal was rated as more feminine, more attractive, and more likely to possess stereotypical feminine traits by both sexes than a woman who ate a large meal.

Similarly, Bock and Kanarek (1995) found a double-standard for eating behaviors between men and women in three meal size conditions: a small (521 Kcal.), medium (956 Kcal.), or large (1371 Kcal.) meal. Subjects were given descriptive information about a target (e.g., gender, weight, hobbies, food preferences) and were asked to rate the target using a 24-item bipolar adjective checklist (e.g., fat/thin, short/tall). While ratings of male targets on attractiveness-related variables were not related to meal size, female targets were perceived as being more concerned with their appearances and to be more attractive as their meal size decreased. Both male and female targets were rated
significantly more masculine and less feminine as their meal sizes increased. These findings clearly show social prejudices and gender role stereotypes against both men and women—women are expected to consume small meals to look thin and to be perceived as feminine, whereas men are expected to consume large meals to look strong and to be perceived as masculine.

Model for the Development and Maintenance of Body Image

Variables Involved in Establishing Body Image

This study proposes a model that can explain the effects of self-schemas (defined in chapter 1) upon individuals’ body images through the process of social comparison (see Figure 1). Almost all individuals are likely to engage in social comparisons in the domain of appearance on a daily basis, as attractiveness information is used in forming impressions of others (Locher et al., 1993). One can hardly avoid comparisons with prevalent media images even though those images are presented mainly for commercial purposes. For example, it is known that individuals can distinguish a target person’s level of attractiveness with a single brief glance (100 milliseconds) (Locher et al., 1993).

Appearance-enhancing behavior (e.g., makeup use) (Cox & Glick, 1986) and evaluations of one’s own appearance in comparison to those of others may be particularly important for individuals with appearance self-schemas, i.e., those who consider appearance to be important. In other words, for individuals who consider the domain of appearance important, presentation of the self through both the physical body and the manipulation of dress (Hillestad, 1980) may be important in their daily lives. This study,
however, mainly focus on physical appearance. It is not because the manipulation of
dress is less important in enhancing one's appearance, but because one's physical
characteristics such as body size/weight are related to core aspects of body image. For
individuals who are preoccupied with and concerned about their appearances,
comparisons with images of others who closely resemble their ideal images are likely to
contribute to triggering negative feelings and forming poor body images.

Media images often represent the ideal images; however, ideal images suggested
in this research are not cultural ideals but individuals' own ideals based on their cognitive
representations. The cultural ideal may affect individuals to one degree or another;
however, there might be some variation depending on individuals' personal and social
backgrounds. In other words, the degree to which individuals internalize cultural
standards of attractiveness into their cognition based on their life experiences may
influence individuals' personal ideals. Influenced by multiple sources of information
such as family, friends, and media in a weight and body-shape conscious culture (Levine
et al., 1994), some may develop a personal ideal that is much closer to the cultural ideal
than others. The central premise of this research is that individuals' self-discrepancies
based on appearance schemas create conflicts between their perceived actual and ideal
appearances, that individuals' self-discrepancies in the domain of appearance are
triggered by comparisons with ideal images, and that the extent to which individuals feel
discrepancies affects their body images.

Individual self-schemas on the domain of appearance may be affected by
developmental and sociocultural factors as well as social comparison in the process of
assessing personal aesthetic value. Examples of developmental factors affecting one's
schemas are maturational status and negative verbal commentary. Examples of sociocultural factors affecting one's schemas are the cultural ideal of beauty, gender role ideology, and influence of mass media. Most people are likely to feel a discrepancy between their actual appearance that they currently possess and the ideal appearance that they wish to possess. Appearance is an important concept for most individuals to some degree or another (Jackson, 1992), particularly for women, and the extent to which they consider it important can influence their body images (Cooper & Fairburn, 1992; Cooper, Anastasiades, & Fairburn, 1992). The more appearance is important to women, the higher discrepancy they may feel between their own and their ideal images and the less satisfaction they may have for their bodies. In other words, the more women are schematic toward appearance, the more likely they are to be dissatisfied with their bodies if their bodies do not match their ideal images.

According to Rudd and Lennon (1994), women often create their appearances to emulate the cultural ideal using appearance-enhancing products and behaviors. Created appearances are then positively or negatively evaluated by significant others (e.g., peers, parents) and those perceived evaluations in turn influence the creators themselves. In their model, if the created appearance is close to the ideal appearance, one’s self-esteem is elevated and one can develop a strong self-image. On the other hand, if the created appearance does not come close to the ideal appearance, one of four coping strategies may be engaged in to create appearances to approximate the aesthetic ideal based on cultural standards. The first two coping strategies begin with accepting cultural standards and differ in terms of effort applied to achieve the ideal: (a) trying harder to achieve the aesthetic ideal or (b) cease trying. The third and fourth strategies focus on rejecting the
cultural standard and modifying personal standards or cultural standards, respectively. The fourth strategy, in particular, aims to change societal norms, possibly by appreciating diverse appearances. Rudd and Lennon consider it the most positive strategy in building self-esteem.

Based on the variables discussed above, the following model (Figure 1) was extended from the Rudd and Lennon model:
Figure 1. The Effects of Social Comparisons, Self-Schemas, and Self-Discrepancies on the Development of Body Image (Model Modified from Hudd and Lennon, 1994)
Coping Strategies for Negative Body Image

If individuals form negative body images from significant discrepancies between their perceived appearance and internalized ideal appearance, they may engage in one of three coping strategies. The first strategy may be used if individuals decide to continue improving their appearances through appearance-modifying commodities and behaviors so that they can approximate their idealized images (see Rudd & Lennon, 1994). Although individuals adopting this strategy are likely to work hard to resemble their ideals, they may never be completely satisfied with their own bodies and they may continue raising their standards with regards to the degree to which they reach the cultural ideal. Still, however hard individuals try, they may never reach the cultural ideal.

The second strategy may be applied by individuals who try to lower their personal standards of ideal appearance to be consistent with their perceived appearance. These individuals may realize that obsession with unrealistic ideals is unhealthy and that the only way to be satisfied with their bodies is to set their standards of ideals within a reachable range. These individuals may focus on positive aspects rather than negative aspects of their bodies when they compare their appearances to those of others, including media images. This strategy can be referred to ‘modifying personal standard’ in the research by Rudd and Lennon (1994).

Finally, regarding the third strategy, individuals may modify their appearance-related schematic domains to overcome negative body images they have. In this strategy, individuals may focus on other schematic domains such as their abilities and achievements, which can give them self-confidence and raise self-esteem in the process of social comparison with those of others. Also, focusing on other schematic domains
may reduce the tendency to make social comparisons on the domain of appearance. This strategy might be the most difficult to implement since individuals may not have much control over already established schematic attributes constructed from their own life experiences and may need to reconstruct some. Therefore, it may be important for parents or other adult individuals in a society help children to establish healthy perceptions toward their bodies at an early age.

In sum, considering the multiple factors affecting one's body image in this model, this study will focus on individuals' cognitive generalizations concerning appearance and their affective component of body image in comparison to attractive images of others.

Justification

Although images in the media, especially those in advertisements, are mainly chosen to present the effectiveness of products and by doing so to appeal broadly to consumers, those images often perpetuate physical attractiveness as salient cues regardless of the type of products. Because images featured in the omnipresent media often represent individuals who have stereotypical cultural standards of the ideal, they are likely to compel viewers to follow those criteria of ideal images prevalent in society. Considering multiple factors such as social stereotypes and gender differences in association with developmental and sociocultural factors in U.S. society, more women than men are expected to approximate the cultural ideal of beauty; thus, women are more likely to be affected by media images. Therefore, this study focuses on women's affective aspects of body image and their self-evaluation of physical attractiveness in relation to their ideal images.
There have been mixed results and conflicting views about the impact of media on women's body images and evaluation of self in general. On the one hand, studies support the belief that individuals dismiss comparisons with dissimilar others (e.g., professional models) and evaluate themselves only in comparison to relatively similar others (e.g., college students peers) in terms of personal variables that surround the specific dimension under evaluation (e.g., Cash et al., 1983). On the other hand, there is evidence that individuals seem to consider media images as important as similar others (Heinberg & Thompson, 1992) and in fact, exposure to media images resulted in diminished self-ratings of physical attractiveness (Thornton & Moore, 1993). The impact of social comparison is likely to differ according to whether individuals consider comparison targets as in-group or out-group members. People view others either as in-group members who belong to their own group or as out-group members who belong to some other social categories. If the impact of social comparison depends on the type of group only, then the results of comparisons with peers or media images might be consistent with predictions made by many researchers (e.g., Tesser, 1988) who claim that individuals tend to compare themselves only to relatively similar others. However, obtaining mixed results in this matter implies that there might be other factors affecting social comparison. For example, it has been shown that the more self-relevant, important, or salient the dimension under evaluation is, the more schematic the comparer may be for that dimension. Therefore, this study predicts that the impact of comparisons with media images may be different according to their salience or importance to the dimension of appearance.
Theoretical Perspectives

This study is based on three theoretical perspectives that are integrated in the suggested model for the study of one's body image. They are social comparison, self-schemas, and self-discrepancy, and they are treated in that order in the following discussion.

Social Comparison

The Core Concept of Social Comparison

People make inferences about their behaviors regarding what is appropriate and what is not appropriate based on behaviors of others. However, they cannot make inferences on an absolute level, as perceptions can vary according to the perceiver as well as the target individual involved. Individuals may compare themselves with others to determine norms for appropriate behavior and criteria for appropriate appearances in social interactions. Not only an appropriate, but also an attractive appearance is expected to benefit people in many aspects of their lives. Thus, individuals may compare themselves to peers, co-workers, magazine models, and television celebrities. In other words, individuals will monitor and evaluate their appearances in comparison to those of others, and this process will shape their criteria toward attractiveness and beauty within their cultural context.

Individuals compare themselves to cognitively imagined others as well as to others in real social interactions. Social comparison occurs regardless of its impact, i.e., whether the process of social comparison changes self-evaluations is not a factor in social comparison. Social comparison theory was developed by Festinger (1954) and has been
expanded to include personal traits and situations (Wood, 1989) and even evaluation of appearance (Cash et al., 1983; Irving, 1990; Richins, 1991). Individuals are known to evaluate themselves based on comparisons with others when there are no objective criteria for evaluation, and this kind of self-evaluation makes people feel satisfied or dissatisfied based on their differences from others. There are two basic kinds of comparisons: upward and downward comparisons. As an effect of downward comparisons, individuals are in general satisfied when they realize that they are superior to or better off than others (Affleck, Tenen, Pfeiffer, Fifeield, & Rowe, 1987). On the other hand, individuals are dissatisfied when they realize that they are inferior to or worse off than others with respect to certain attributes or situations as an effect of upward comparisons (Irving, 1990).

Self-satisfaction from downward comparisons is likely to bring self-confidence and high self-esteem, while dissatisfaction with the self as a result of upward comparisons is likely to bring lack of self-confidence and low self-esteem. For example, in one study (Thornton et al., 1993) the self-esteem of subjects varied according to whether they were exposed to attractive model photos, unattractive model photos, or no photos. A group of college males and females who were exposed to highly attractive same-sex stimulus persons rated their self-esteem lower than those who were not exposed to stimulus persons (the control condition). The self-esteem of subjects in the control condition was yet lower than that of those who were exposed to unattractive same-sex photos. Similarly, a lower level of self-esteem was found when women with bulimic symptoms were exposed to thin fashion models than when exposed to average and oversize models (Irving, 1990). These findings support the idea that comparisons of the
self with attractive people may contribute to decreased self-esteem. In the process of acquiring social information, individuals not only deliberately seek comparison targets but they may also automatically process comparisons by encountering social information (see Wood, 1996, for a review). For example, being exposed to media images may lead individuals to engage in unintentional comparisons with those images.

**Social Comparison Targets and Motives**

Individuals engage in social comparisons for the purpose of self-evaluation, which is a way for them to determine their positions on the dimension of comparison relative to others (Wood & Taylor, 1991). The original theory (Festinger, 1954) postulated that social comparisons occur among similar individuals for self-evaluation as similar others are expected to provide more accurate information than those who are very different from evaluators. According to Wood et al. (1991), since similarity can be defined in terms of proximity to the dimension under consideration (i.e., specific attributes being evaluated) as well as dimensions surrounding the specific dimension under consideration (e.g., gender, age, race), what Festinger meant by similar others is not clear. Wood (1989) suggested that comparisons for self-evaluation may occur among dissimilar individuals who are either superior or inferior to oneself, but share attributes that surround the specific dimension under evaluation. Similar others belonging to common social categories may be more informative than those with similar levels of the dimension under evaluation, especially when individuals are unfamiliar with the specific dimension (Wood et al., 1991). For example, when an individual does not know how good or bad his/her own score is on a test, he/she may try to compare his/her score to
those at the highest and lowest levels (dissimilar on the dimension of evaluation) others. However, one is likely to compare to those who are of the same gender, age, or level of education (similar on surrounding dimensions) rather than to those who are different on surrounding dimensions. At any rate, similar or close others on surrounding dimensions seem to have more impact on one's self-evaluation than dissimilar others (Tesser, Millar, & Moore, 1988). Festinger's logic on social comparison characterized individuals as rational and unbiased in their search for accurate self-evaluation. However, it has been suggested that individuals often bias information for their own self-improvement and self-enhancement (Wood, 1989). Presumably, except for those who are motivated to locate their stands relative to others through self-evaluation, individuals with goals of self-improvement or self-enhancement may seek a specific direction for their comparisons.

Individuals with the goal of self-improvement will seek a comparison target from whom they can learn to do better or from whom they can be inspired to do better on the dimension of comparison. Thus, upward comparisons are most likely to serve the motivation of self-improvement. Although a comparison with superior others may make them feel bad as a result of their perceived inferiority, it can, by activating a spirit of competitiveness, eventually lead to self-improvement. For example, when a chess player compares his/her skills with those of other players of superior levels rather than those of inferior levels, the superior players can be an inspiration to improve his/her skills. On the other hand, individuals with the goal of self-enhancement will seek comparison targets who are inferior to or less fortunate than them and thus make them feel better about themselves. Downward comparisons serving the goal of self-enhancement seem to
improve one's mood or self-esteem (Affleck & Tennen, 1991). Therefore, social comparison is based on three broad motives (Wood, 1989): self-evaluation, self-improvement, and self-enhancement. While the goal of self-evaluation appears to play an informative function of social comparisons, goals of self-enhancement and self-improvement seem to appeal to emotional and behavioral consequences of social comparisons.

**Social Comparison Effects**

The notion of downward and upward comparisons has been challenged by some researchers (Baukom, Taylor, Collins, & VanYperen, 1990; Taylor & Lobel, 1989), for there is no clear explanation of comparison effects as well as motives. Consequences of upward comparisons may not always induce a negative mood and decreased self-esteem and similarly, downward comparisons may not always result in a positive mood and elevated self-esteem. Some researchers (Salovey & Rodin, 1984; Testa & Major, 1990) suggest that consequences of upward and downward comparisons are largely negative and positive, respectively, along the dimension (e.g., attractiveness, intelligence) in which the comparer has little control over changing his/her relative position (Major, Testa, & Bytuma, 1991). Individuals may have no choice but to accept their less fortunate situations relative to better-off others in upward comparisons. In downward comparisons, however, individuals may feel lucky to be in better situations than worse-off others for the dimension over which they have little control.

For dimensions that are perceived to be controllable or changeable, although negative affective responses may not be deniable, upward comparisons often generate positive behavioral consequences for comparers (Major et al., 1994). For example, Kulik and Mahler (1989) analyzed preoperative anxiety and roommate preferences in patients
who were waiting for coronary-bypass surgery. The results showed that preoperative
patients preferred more postoperative patients than preoperative patients as their
roommates. For preoperative patients, postoperative patients who had already
successfully undergone the same surgery may give comfort in reducing their own stress
and anxiety and at the same time, postoperative patients may become role models to
improve stressful situations. In addition, downward comparisons with others, especially
those with similar others, may have a negative rather than a positive influence on
affective responses when comparers have little control over stressful situations (Hemphill
& Lehman, 1991; Wood, Taylor, & Lichtman, 1985). For example, compared to cancer
patients with much perceived control over their disease, cancer patients with little
perceived control responded more negatively after being exposed to information about
other cancer patients in worse situations (Buunk, Collins, Taylor, VanYperen, & Dakof,
1990). Seeing others who are worse off seems to make one feel more depressed and
expect less positive outcomes for life-threatening or stressful events or dimensions over
which he/she has little control.

A number of studies have confirmed that under conditions of threat or
victimization, individuals make downward comparisons (Afleck et al., 1987; Taylor,
Buunk, & Aspinwall, 1990; Wood et al., 1985). For example, Wood et al. (1985)
interviewed cancer patients as to their targets for self-comparison and found that most of
the cancer patients preferred to compare themselves with people whose condition was
worse than their own. Nevertheless, individuals under threatening situations often
construct imaginary targets for downward comparison to protect themselves and to avoid
real contact with worse-off others who may lower one’s aspirations (see Wool, 1989 for
a review). According to Taylor and Lobel (1989), under threatening or stressful
situations, individuals not only make downward comparisons to evaluate themselves
favorably as a result of the self-enhancement motivation, but they also make upward
comparisons to obtain information or a sense of affiliation. For people in threatening situations, information seeking or affiliation seeking may be ways to reduce perceived risks through comparison with others having these same characteristics but who are better off or have survived those risks.

In sum, upward comparisons may result in negative impact (e.g., low self-esteem, depression) because one is not as fortunate as others. Upward comparisons may also have a positive impact (e.g., comfort, inspiration, modeling) with a possibility of improvement for the dimension under consideration. Similarly, downward comparisons may result in a positive impact (e.g., elevated self-esteem, sense of pride) because one is better off than others, but they may also increase negative impact (e.g., fears, anxieties) over the possibility of getting worse in the future.

People do not compare themselves to just anyone; rather, they choose relatively similar others in order to acquire appropriate information (called diagnostic information) with which to make comparisons. For example, it might be a ridiculous attempt if a professional football player tried to compare his car with the toy car of a child. Unlike the conventional idea that individuals do not engage in comparisons for inappropriate comparison information (called, nondiagnostic information), Gilbert, Giesler, and Morris (1995) found that distinguishing diagnostic information from nondiagnostic information is possible only after comparisons are made to some extent. In their study, participants connected to a bogus affect-detection device were exposed to 18 pairs of photographs and were asked to determine which of the male targets in each pair was expressing insincere emotions. After finishing the task, half the participants watched a female confederate performing the same task and the other half watched the female confederate performing a different task. As a second manipulation of performance, participants were then informed that they responded correctly on 10 of 18 trials and that the confederate responded correctly on either 16 of 18 trials or 4 of 18 trials. Participants were asked to
report their affect at several points throughout the experiment, including the affect at the
two critical points (immediately after they learned their scores and immediately after they
learned the confederate's score). Gilbert et al. (1995) found that regardless of whether
the task was the same or different, participants experienced more positive mood changes
when they were informed that the confederate did poorly than when she did well. These
affective consequences, however, disappeared by the end of the experiment. This implies
that there are no subsequent reactions from social comparison when subjects make
comparisons using nondiagnostic information (Gilbert et al., 1995). This study suggests
that the initiation of comparisons may have been unintentional and automatic because
individuals were able to undo the effects of comparisons only after they found out that
they did not have appropriate information with which to compare. Presumably, social
comparisons may occur not only intentionally but even unintentionally. If the latter is the
case, individuals may try to dismiss comparisons they made and recover from cognitive
and emotional consequences of social comparisons. It is believed that reversing
cognitive responses may not be easy; however, reversing emotional responses from
comparisons may be even harder, especially in terms of negative emotional
consequences.

Factors affecting the Impact of Social Comparisons

The consequences of upward and downward comparisons are determined by
factors such as the similarity of the comparison other on surrounding dimensions, the
self-relevance (or importance) of the dimension under evaluation, and the degree of
perceived control (see Major et al., 1991, for a review). According to Tesser (1988), the
comparer is affected the most by comparisons with similar others on self-relevant
dimensions. Comparison consequences made on an important dimension may differ from
those made on an unimportant dimension, possibly leading to more positive or negative

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effects. Similarly, the more self-relevant dimensions may provide greater motivation for individuals to achieve goals of self-enhancement or self-improvement. Therefore, the impact of upward and downward social comparisons may vary according to the perceived similarity and importance of the dimension of comparison to the comparer. The degree of perceived control (Testa et al., 1990) depends on how alterable the comparison dimension is with other dimensions and the comparer’s ability to change his or her relative status on the dimension (Major et al., 1991). For example, dimensions related to personal skills are more or less personally controllable, but the comparer does not really have control over dimensions such as physical characteristics and personality attributes. Not only does the dimension under evaluation matter, but individual differences (e.g., self-esteem, the degree of optimism and pessimism) also influence the degree of perceived controllability (Major et al., 1991). For example, in a study by Buunk et al. (1990), cancer patients with low self-esteem experienced more negative affect than those with high self-esteem following exposure to other cancer patients in both upward and downward comparisons. Individuals with low self-esteem are more likely to feel frustrated and blame themselves because they are not as fortunate as others in upward comparisons. Also, they are more likely to fear getting worse when they are exposed to failing others in the same dimension in which they are involved. The nature of the dimension (e.g., familiarity, importance, self-relevance, controllability) under evaluation and perceived similarity of dimensions surrounding the dimension being evaluated may bias one in the search for a comparison target, which can satisfy one’s comparison motives (or goals) and expected impact (see Wood, 1989; Wood et al., 1991, for a review).
Evaluation of Attractiveness and Body Satisfaction as a Function of Social Comparison

Attractiveness is a cultural category as it distinguishes people based on their differences (Kaiser, 1990), and social comparison is a way in which individuals evaluate their differences with others. Since people recognize their cultural standards of beauty in their social interactions and try to meet those standards, continuous comparison among people in regard to their own appearance or attractiveness and that of others seems to occur as a general rule in a society. Nonetheless, research studying comparisons of one's own physical attractiveness with that of similar and dissimilar others including media images has shown mixed results, some possibly due to methodological differences (see Table 1) and others possibly due to not taking individual differences into account.
<table>
<thead>
<tr>
<th>Authors</th>
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<th>Dependent variable</th>
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<tr>
<td>Cath et al.</td>
<td>Female college students</td>
<td>Picture rating questionnaire, Self-evaluation of physical attractiveness, the Body Satisfaction Questionnaire</td>
<td>Three levels: physically attractive peers, physically unattractive labeled as professional, not physically attractive</td>
<td>Three sets of five photographs</td>
<td>Similar body satisfaction across conditions, toward self-evaluations of physical attractiveness of attractive peer condition than others</td>
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<td>Betsina</td>
<td>Female college students</td>
<td>Several dimensions including own level of attractiveness, satisfaction with attractiveness</td>
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<td>Thornton &amp; Moore</td>
<td>Male and female</td>
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<td>Lower self-ratings of attractiveness for both sexes in attractive model condition than no-exposure; lower self-ratings of attractiveness in women than men; no impact on global self-esteem, heightened public self-consciousness, and social anxiety in attractive model condition</td>
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<td>Martin &amp; Kennedy</td>
<td>Female students in grades 4, 5, &amp; 12</td>
<td>Self-esteem, self-perception of physical attractiveness, and the tendency to compare to advertising models</td>
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<td>Photos of models from magazine ads</td>
<td>Similar self-perceptions of physical attractiveness across conditions; increased tendency to compare to models in ads with age; greater tendency to compare to models in ads among those w/-low self-perceptions of physical attractiveness and or self-esteem</td>
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<td>Heinberg &amp; Thompson</td>
<td>Female college students</td>
<td>Depression, anger, body satisfaction</td>
<td>Three levels: in advertising or cognitive distortion about physical appearance (high, low), time of viewing (pre, post), and type of video stimulus</td>
<td>Videotape containing commercial ads</td>
<td>Increased depression and anger for women w/-high social-cultural awareness, increased level of body dissatisfaction w/-exposure to attractive images</td>
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Table 1: Methodologies Used in Other Social Comparison Studies
In a study by Cash, Cash, and Butters (1983) female college students were exposed to magazine photos in three conditions: physically attractive peers, physically attractive/labeled as professional models, and not physically attractive. To distinguish professional models from peers in attractive conditions, commercial names cut from magazines were randomly paired with each picture. Although female college students' body satisfaction was similar across these conditions, participants who viewed the photos of attractive peers rated self-evaluations of physical attractiveness lower than those who viewed the photos of attractive professional or not physically attractive models. In another study, when photos of attractive images were not labeled as professional models even if they were real models, both male and female subjects exposed to those models rated their own physical attractiveness lower than subjects with no exposure (Thornton & Moore, 1993). In that study, women's self-ratings of attractiveness were lower than men's.

In a study by Martin and Kennedy (1993), female preadolescents and adolescents in the 4th, 8th, and 12th grades were exposed to ads with highly attractive models, moderately attractive models, or no models. After exposure to a set of ads, participants were asked to give ratings of self-esteem, self-perceptions of physical attractiveness, and tendency to compare to advertising models on the scales designed for specific grades. Martin and Kennedy found that even though exposure to media images raised comparison standards for physical attractiveness, preadolescent and adolescent subjects did not change self-perceptions of physical attractiveness after being exposed to media images. Interestingly though, 8th-grade preadolescents and 12th-grade adolescents showed a greater tendency to compare their physical attractiveness to that of models in ads than 4th-grade girls. This is presumed to be because of the increasing pressure placed on women to be physically attractive in U.S. society. Also, significant negative correlations were found both between self-perceptions of physical attractiveness and the tendency to
compare with advertising models, and between self-esteem and the tendency to compare with advertising models (Martin et al., 1993). Upward comparisons, particularly with those who are close or similar to the attributes related to the domain of comparison, may degrade evaluators' self-esteem. In these studies, effects of upward comparison occurred only for those individuals who were exposed to either images of peer-labeled attractive models or peer-like models in the media. When comparison targets are understood as dissimilar others such as professional models, individuals may undo self-raising of their physical attractiveness by dismissing comparisons between those models and themselves (see Wood, 1996, for a review).

Heinberg and Thompson (1992), however, noted the possibility that individuals may identify media images as comparison targets. In testing the relative importance of specific comparison targets to body image among male and female college students, celebrities were rated as less important than friends, but were still rated as important as more particularistic groups of classmates and students (Friends > Classmates = Students = Celebrities > USA citizens = Family). More importantly, in Richins' (1991) study, female college students exhibited lower satisfaction with their own physical attractiveness if they were first exposed to advertisements containing idealized images. In this study, female subjects were exposed to two experimental conditions: magazine advertisements with highly attractive models and advertisements with no models (control condition). While subjects indicated lowered satisfaction with their own attractiveness, their perceptions regarding their own level of attractiveness were similar regardless of stimulus conditions. According to Richins, although subjects raised comparison standards for attractiveness after viewing attractive images in ads, their own level of attractiveness, which is considered to be part of self-concept, is likely to be stable across situations.
Certain individual factors may also account for variance in self-evaluations and satisfaction with self compared to media images. For example, Heinberg and Thompson (1995) found that people who are high in cognitive distortions related to physical appearance and awareness/internalization of thinness and attractiveness exhibited increased depression and body dissatisfaction, and depression and anger, respectively when they were exposed to commercial advertisements with societal ideals of thinness and attractiveness. Evaluation of self as a function of social comparison indicates that people sometimes make comparisons with media images and at other times do not make such comparisons. Nevertheless, women may feel compelled to approximate cultural standards of ideal appearance perpetuated by media images on a daily basis. Thus, it is not unusual for women to consider those familiar media images as comparison targets. In fact, more chances for self-evaluations in comparison to media images may be expected in a society in which people are highly individualized and advanced technology reduces the number of actual social interactions. For instance, an increasing number of mail order purchases of fashion products in U.S. society suggests that more and more people look at catalogues and television shopping channels to make their choices. In this sense, contemporary American society may be one of the most ideal places to examine the effects of social comparisons with ideal media images.

Self-Schemas

The Core Feature of Self-Schemas

People generalize their self-images in certain thoughts and feelings, which are represented by cognitive representations or organized information about the self, called
self-schemas (or self-schemata) (Markus, 1977). In order to process massive amounts of information, people may seek cognitive simplicity through the use of these cognitive structures. Cognitive structures shaped by individuals' past experiences in their environments (Markus & Zajonc, 1985) seem to distinguish self-relevant information from non self-relevant information (Markus, Smith, & Moreland, 1985). Markus and Wurf (1987) summarized some of the relationships between the self as a cognitive structure and functions of information processing (p. 317): (1) individuals show a heightened sensitivity to self-relevant stimuli; (2) individuals efficiently process self-congruent stimuli; (3) individuals exhibit enhanced recall and recognition for self-relevant stimuli; (4) individuals make confident behavioral predictions, attributions, and inferences in self-relevant domains; (4) individuals are resistant to information that is incongruent with the self-structure.

Cognitive structures are represented by a number of concepts. One of the main cognitive representations is called a "schema" (Neisser, 1976), defined as a preconception or theory (Fiske, 1995), which guides the way the perceiver processes information. According to Markus and Smith (1981), "self-schemata are developed from the repeated similar categorization and evaluation of behavior by oneself and others and result in a clearly differentiated idea of the kind of person one is with respect to a particular domain of behavior" (p. 240). In other words, self-schemata result from the process of acquiring knowledge about the self. Self-schemata influence information processing about the self in a variety of domains (e.g., independence, masculinity, obesity) with more consistent judgments in one's schematic domains.
Self-Schemas in Information Processing

Individuals pay more attention to what they already have in their minds and thus schema-relevant information is likely to be noticed first. This is evidenced by the tendency to judge others on dimensions which have personal importance (Lewicki, 1984). When information about the self is processed, self-schemas are used as a knowledge structure. The self as a system of schemata accommodates the self as subjective knower as well as an object of knowledge (Greenwald & Pratkanis, 1984). In the processing of information about the self and others (Kuijper & Rogers, 1979), for example, self-relevant judgments were made more rapidly and led to greater recall of the trait stimuli than unknown other-relevant judgments. Markus et al. (1985) designed a study to investigate the effect of self-schemas on processing time for judgments about others and for recognition memory. In this study the domain of masculinity was chosen to examine the effect of self-schemas. To identify subjects as schematics (people with a self-schema in a particular domain) and aschematics (people with no self-schema in a particular domain) along the domain of masculinity, subjects were given questionnaires that included a number of 11-point self-rating scales (1 = describes me, 11 = does not describe me). Items on self-rating scales dealt with aspects of masculine behavior, and subjects were also asked to rate the importance of each trait to their overall self-evaluation using an 11-point scale (1 = very important, 11 = not at all important). Masculine schematics were those individuals who rated themselves as extreme (points 1-4) on most trait adjectives concerning masculinity (e.g., aggressive, dominant, and acts as a leader), and who indicated that those characteristics were important to their self-evaluation (points 1-4). On the other hand, aschematics were those who rated themselves
in the moderate range (points 5-7) for masculine adjectives, and who indicated that those adjectives were unimportant to their self-evaluation (points 8-11). Schematics and aschematics were called upon for a follow-up experiment using a film comprising two segments that depicted a male college student performing a number of routine activities in his dorm. One segment of the film consisted of schema-relevant, masculine activities (e.g., lifting weights, watching a baseball game) and another segment consisted of schema-irrelevant, neutral activities (e.g., eating an apple, playing records). The experiment consisted of three cognitive tasks: unitizing, identifying descriptions of the actor, and recalling of the actor's behavior. In the unitizing task, subjects were asked to press a button each time they saw a meaningful action unit as they watched the presentation of the film. Schematics were compared with aschematics for the mean number of button presses for each minute of the schema-relevant and schema-irrelevant film segments. For descriptions of the actor, subjects were shown 60 trait adjectives consisting of 20 masculine words, 20 feminine words, and 20 neutral words, and were asked to push a button labeled either him or not him if the word was descriptive of the actor. For the recall of the actor's behavior, subjects were asked to supply details from both the schema-relevant and the schema-irrelevant segments.

Results showed that schematics encoded larger units (the smaller mean number of responses) than did aschematics for the schema-relevant film (Markus et al., 1985). Perhaps, masculine actions in the schema-relevant film primed both the schematics and aschematics to the masculinity, but those actions were seen as a consistent stream of behavior more by the schematics than by the aschematics. For the former group, schema-related information can be categorized as one large unit because subjects saw relatively
more similarity and meaning among the activities of the target individual shown in the schema-relevant film. In addition, schematics attributed significantly more masculine attributes to the actor (description of actor) than did aschematics. Although no differences were found between schematics and aschematics in recall of either schema-relevant or schema-irrelevant behaviors, schematics had greater confidence in recall for the domain of masculinity than did aschematics (Markus et al., 1985). Presumably, schematics feel more confident in giving responses concerning the area of masculinity than aschematics. Fiske (1995) identified three general roles of schemas in information processing: (1) schemas direct attention and guide the encoding of schema-relevant information; (2) schemas guide memory; (3) schemas influence judgment. Since individuals are likely to have well-developed knowledge in schematic domains, they become their own experts in their schemas. Upon activation, schematic domains are expected to last much longer than aschematic domains. Thus, in the following section schema as the core quality of the self is discussed.

Self-Schemas and Chronic Accessibility

Self-schemas allow one to selectively attend to information of greater relative importance, while unattended information is likely to be ignored. In other words, self-schemas bias individuals to selectively attend to certain features of information, while ignoring others. For example, in a study by Markus, Hamill, and Sentis (1987), subjects were identified as body weight schematics and body weight aschematics. Schematics were those who indicated the term “overweight” as self-descriptive (points 8-11) on an eleven-point semantic differential scale (underweight-overweight) and who indicated trus
an important dimension to their self-concepts. On the other hand, aschematics were those who placed themselves in the middle range (points 5-7) on the semantic differential scale. Therefore, schematics perceived themselves as overweight, while aschematics perceived themselves as of normal body weight. Schematic and aschematic subjects were divided into groups according to their objective body weight: schematic-overweight (22% overweight), schematic-obese (50% overweight), aschematic (normal weight), schematic-overweight (20% overweight). They were asked to indicate whether or not a series of trait adjectives described them, to select which body silhouette represented them, and to choose whether they would like to eat a series of foods by responding "ME" or "NOT ME" to each food trait. The two schematic groups (schematic-overweight, schematic-obese) identified themselves with more fat adjectives than thin adjectives. Schematic-obese individuals were more prone to identify themselves with fat adjectives than schematic-overweight individuals. The aschematic groups associated themselves with more thin adjectives than fat adjectives. Schematics were faster at endorsing the fat adjectives, while aschematics were faster at endorsing the thin adjectives. The schematics endorsed more fat silhouettes than the schematics and showed faster response latencies for fat silhouettes than thin silhouettes. Also, the two schematic groups chose fewer food-related traits and showed significantly slower response latencies to those traits than did the aschematic groups. This may be because schematics who are highly concerned about their body weight and describe themselves as overweight feel rejection toward eating foods and gaining weight. The results indicated that subjects showed a clear differentiation both in their responses and response times to schema-consistent and schema-inconsistent traits as a function of schematicity. Therefore,
Markus et al.’s (1987) study demonstrated that individuals who have self-schemas in a particular domain can make judgments about themselves in this domain quickly, confidently, and consistently.

According to Tesser (1978), the more one elaborates on the thinking process, the more one’s thoughts are likely to become consistent with the schema. Attributes or constructs related to self-schemas are always in people’s minds as well-developed self-structures and are ready to be activated in information processing as chronically accessible constructs. Chronically accessible constructs are constructs that are cognitively available due to persistent activation over time (Bargh, 1982; Riggins, King, & Mavin, 1982). Although different traits are chronically accessible to different individuals chronically accessible constructs seem to be available as fundamental sources for social perception and judgments across contexts. Chronically accessible constructs are independent of temporarily accessible constructs, which may be activated by a priming effect (Bargh, Bond, Lombardi, & Tota, 1986). Priming refers to the fact that certain constructs become available through previously encountered information (Bruner, 1957; Bargh, 1982). Once they are activated, chronically accessible constructs are known to last much longer and decay more slowly than constructs temporarily activated by the priming effect (Markus et al., 1985).

**Physical Appearance as a Schematic Domain**

No two individuals are likely to have the same schemas about the self; thus, people are likely to engage in different information processing according to their own schematic organization. In addition, the level of schematicity individuals possess on
certain domains may differ according to the amount of knowledge and the level of
generality on those domains. Some schemas are shared by everyone to one degree or
another; for example, schemas are used for organizing behaviors and attributes expected
of people in particular social positions (e.g., mother, professor) or social categories (e.g.,
physical appearance is a "universal schema" since nearly everyone is expected to have
some general knowledge of the prototypical attributes of ideal physical appearance.
Although physical attributes are not important constructs to everyone, every individual
may have some generalized ideas about their physical attributes. They are aware of their
appearances in comparison to those of others and in comparison to media images. Body
weight as a central feature of individual body image (Cash et al., 1995a) is not only a
universal schema but also a "particularistic schema," which is possessed by some
individuals as a critical domain in evaluating themselves as well as others (Markus et al.,
1987). Some may consider body weight an important domain for their self-evaluations
and for them, body weight can be a focus of their attention. That is, information related
to body weight can be processed in very different ways depending on whether individuals
have body weight schemas or not.

Compared to nonclinical populations, individuals with eating disorders (anorexia
nervosa and bulimia nervosa) are significantly more dissatisfied with their bodies (Slade,
Dewey, Newton, Brodie, & Kiemle, 1999). Some studies have examined cognitive
distortions based on selective information processing among people with eating disorders
using the Stroop color-naming task (Channon, Hemsley, & Silva, 1988; Cooper,
Anastasiadis, & Fairburn, 1992; Cooper, & Fairburn, 1993). In the Stroop color-naming
task (Stroop, 1935), subjects are asked to name as quickly as possible the color of ink in which words are printed, and reaction times are measured for each word. If the printed word is salient to the subjects, their response times for color naming are slower than if the word is not salient. For example, Channon et al. (1988) used the Stroop color-naming task to examine the process for selecting information concerning food and body size among anorexic and non-anorexic women. In that study, color-naming times for the food-related words compared to the control condition were significantly slower for both groups, with much greater effects for anorexic women. There was no interaction between the group and the condition on color-naming times for the body-related words. Thus, reaction times for color-naming the body-related words were similar among women.

In other research, distorted attitudes toward eating, weight, and body shape among female bulimic patients were examined by using the Stroop color-naming task (Cooper, Anastasiades, & Fairburn, 1992). Compared to a group of control subjects, the bulimia nervosa group responded significantly more slowly to color-naming words related to eating, weight, and body shape such as cakes, fat, diet, thighs, and hips. These examples show that interference with color-naming seems to occur whenever cognitively relevant words are named (food-related words for anorexic women and food, body weight, and body shape-related words for bulimic women). Eating disordered individuals with food, body weight and body shape schemas may notice schema-related traits before they think about the color of words in the Stroop task, and the selective attention to schema-relevant traits appears to cause delay in the color-naming. One's self-schemas framed through one's experiences may function as fundamental sources for how one feels about oneself.
on certain domains from own as well as others' perspectives. In the next section, the complex structure of the self related to self-schemata is discussed.

Self-Discrepancy

The Core Feature of Self-Discrepancy

According to self-discrepancy theory (Higgins, 1987), an individual's self consists of the actual self (as self-concept) and the ideal and ought selves as two self-guides based on two standpoints: own and some significant other (e.g., mother, father, closest friend, a romantic partner). These three domains are: (1) the "actual self", i.e., the attributes represented by what one or a significant other believes one actually possesses; (2) the "ideal self", i.e., the attributes represented by how one would like to be or what a significant other would like one to possess; (3) and the "ought self", i.e., the attributes represented by what one or a significant other thinks one ought to possess. The combination of each of the three domains of the self and the two standpoints on the self yields the following kinds of self-state representations as shown in Figure 2 (Higgins, 1987; 1989): actual/own, actual/other, ideal/own, ideal/other, ought/own, and ought/other.
In essence, self-discrepancy theory postulates that discrepancies between the actual self and the ideal self (or the ought self) induce a negative psychological effect, which in turn motivates individuals to reduce self-discrepancies because individuals seek congruence between their actual self-concept and their self-guides (i.e., internalized ideals and oughts). The theory also considers individuals’ differences in their self-guides; that is, some may possess only self-guides from their own standpoint, whereas others may possess only self-guides of other standpoints; in addition, some may possess only ought self-guides whereas others may possess only ideal self-guides (Higgins, 1989).

People possessing actual (own) vs. ideal (own or other) self-discrepancies are vulnerable to dejection-related emotions such as sadness or disappointment due to the psychological state of an absence of positive outcomes (i.e., nonobtainment of desired goals) (Higgins, 1989). On the other hand, people possessing actual (own) vs. ought (own or other) self-discrepancies are vulnerable to agitation-related emotions such as
fear, worry, or tension due to the psychological state of the presence of negative outcomes (i.e., punishment from not meeting obligated duties) (Higgins, 1989). As is the case for other psychological problems of individual experience, individual differences are expected in the degree of vulnerability to the kinds of emotional problems associated with each type of discrepancy (Higgins, 1989).

In addition, studies support the proposal that the psychological discomfort associated with a particular type of discrepancy individuals' possess increases as the magnitude or the accessibility of discrepancy increases (Higgins, Bend, Klein, & Strauman, 1986; Strauman & Higgins, 1987). For example, a particular type of self-discrepancy (either actual/ideal or actual/ought) was more accessible to individuals who were primed with thoughts about ideal (by discussing their own and their parents' hopes) or ought self (by discussing their own and their parents' beliefs concerning their duties) than to those who were not primed. Individuals whose discrepancies were high in magnitude for each type of self-discrepancy showed more disturbed emotional states (Higgins et al., 1986). Higgins et al. (1986) showed that a self-discrepancy of a construct in a cognitive structure could be momentarily increased by contextual priming. The relative accessibility of a particular type of discrepancy may be dependent on how important and self-relevant constructs are to individuals as well as on how knowledgeable individuals are about those constructs.

Body Image and Self-Discrepancies

Individuals internalize cultural standards of ideal physical appearance (Cash et al., 1990) to varying degrees, and they are expected to feel discrepancies when their own
bodies do not match internalized ideal images. Although men are not immune to pressure
to look good, more women are expected to feel self-discrepancies regarding appearance-
related attributes than men since women feel more social pressure to be beautiful and
attractive. The greater dissatisfaction with their bodies among women than men
(Jackson, 1992) seems to result from the greater appearance self-discrepancies among
women than men. Women may feel discrepancies because their physical attributes do not
match cultural standards, which are rather ideal states. In fact, one's internalized ideal
images are often based on cognitive constructions rather than on objective criteria
reflecting cultural standards, and so a woman who seems to represent cultural standards
of the ideal quite reasonably may still feel discrepancies between her actual image and
her ideal or ought image. Thus individuals with disturbed body images may have higher
appearance-related self-discrepancies than those with no body image disturbances.

Self-discrepancy theory has been used to study and identify kinds of discrepancies
that individuals may possess in relation to body image distress and eating disorders
(Altice et al., 1996; Strauman & Glenberg, 1994; Strauman, Vockles, Berenstein,
Chaiten, & Higgins, 1991; Szymanski & Cash, 1995). For example, an actual:ideal
discrepancy was associated with body shape dissatisfaction and bulimic-related eating
behaviors, whereas an actual:ought discrepancy was associated with anorexic-related
attitudes and eating problems (Strauman et al., 1991). Also, actual:ideal self-discrepancy
was the best predictor of bias in one's own body size (Strauman et al., 1994).

The fact that women are more critical of their bodies and evaluate their bodies
more negatively than men (Cash et al., 1986) has been consistently supported by sex
differences in perceptions of ideal bodies. For example, Fallon and Rozin (1985) found
that women exhibited higher discrepancies between their actual and ideal figures than did men. This might be because more women than men consider appearance important. In a study by Jacobi and Cash (1994) investigating actual-ideal discrepancies based on own or perceived other-sex standpoints, however, women's ideals were thinner than their self-perceived actual weight and size, whereas men's ideals were more muscular than their self-perceived actual bodies with similar discrepancies across both groups of sex. These physical appearance discrepancies reported by both sexes are similar to results from a study by Franzoi and Herzog (1987), in which college students placed importance on upper body strength for judgments of men's physical appearance and on weight concern for judgments of women's physical attractiveness. Although emphasis is placed upon different body parts for each sex, appearance is perhaps becoming more important for both sexes since individuals are often influenced by attractive media images and by positive social evaluations.

Self-Discrepancies Based on Appearance-Related Schemas

The extent to which one has appearance-related self-schematically may influence the discrepancy between one's actual self and ideal or ought self in relation to appearance. For example, Altice and Thompson (1996) examined the relationship between subjects' discrepancies (own actual, own ideal, own actual; own ought, own actual; cultural ideal, own actual; cultural ought) on physical appearance as a measure of body image schema and traditional measures of body image and mood. In that study, subjects were given the Selvies Questionnaire to list traits concerning their own actual, own ideal, and own ought physical appearance as well as the cultural ideal and ought
appearance, referred to as the Physical Appearance Discrepancy Questionnaire (PADQ). They found that the actual/ideal discrepancy from own perspective was positively related to body image anxiety and to body dissatisfaction as well as to depression. About a month after subjects rated their discrepancies (PADQ), they were asked to rate the importance of their appearance to their self-esteem on an 11-point scale. The subjects were divided into low and high appearance importance groups based on their ratings. Subjects were asked to complete 10 sentence stems and were given one of three types of sentence conditions: the body-relevant/non-self-relevant condition (e.g., a woman with smooth elbows...), the non-body-relevant/non-self-relevant condition (e.g., a woman with a smooth driveway...), and the body-relevant/self-relevant condition (e.g., a woman with a flat stomach...). Traits used in priming the self-relevant condition were selected from their own actual/ideal discrepancy list. Compared to low appearance importance subjects who were primed to their own body image schema-related information, high appearance importance subjects who are primed to their own body image schema-related information experienced more negative moods (i.e., depression, anxiety, appearance dissatisfaction). Individuals with an appearance schema consider physical characteristics important and seem to experience mood changes triggered by primed schema-related information.

Cash and Szymanski (1995b) developed an attitudinal body-image assessment scale called the Body-Image Ideals Questionnaire (BIQ), which measures one's perceived discrepancies from and the importance of multiple physical attributes. The BIQ results were further examined by measuring discrepancies on physical attributes from perceived others (e.g., romantic partner, spouse) as well as one's own standpoints (Szymanski et al.,
1995). The results showed that subjects' body-image dissatisfaction was better accounted for by personal ideals than perceived others' ideals, whereas body-image distress and eating disturbances were explained by ideals from both standpoints. Overall, self-discrepancy theory seems to be useful in predicting one's appearance schematicity and body image. Based on the theoretical background reviewed, the researcher developed the following predictions.

Predictions

Whether they are conducted with similar or dissimilar others, upward comparisons with attractive images will distress individuals to some extent, especially those with self-schemas in the domain of appearance. The present study predicted that as compared to individuals with low appearance schematicity, individuals with high appearance self-schematicity would show more negative effects as immediate responses after being exposed to attractive images of others. It was also predicted that individuals would be more emotionally distressed when they were exposed to attractive images of similar rather than dissimilar others, as they would feel more distress after exposure to similar than dissimilar others.

Exposure to attractive images will trigger differences in individuals' self-evaluations in the domain of appearance. Therefore, it was further predicted that after being exposed to attractive images of others, individuals would show differences in their self-esteem, appearance evaluation, and appearance orientation depending on whether individuals had high or low schematicity toward appearance. Lowered self-esteem and appearance evaluation were expected for individuals with high appearance schematicity.
after they were exposed to attractive images of others. Also, exposure to attractive images of others should trigger, in their cognition and behaviors, a greater sense of importance regarding appearance for individuals with high appearance schematicity than those with low appearance schematicity. Since one's self-esteem and investment in his/her own appearance are stable parts of one's self concept, exposure to attractive images of similar or dissimilar others should not affect differences in individuals' self-esteem, appearance evaluation, and appearance orientation. Thus, the effects for similarity of attractive images on the measures of self-esteem, appearance evaluation, and appearance orientation were not part of the study. Based on the first two predictions, appearance-schematic individuals who are exposed to attractive images of similar others should be distressed the most as a function of appearance self-schematicity and similarity of attractive others. That is, individuals with higher levels of appearance schematicity and those who are exposed to attractive images of similar rather than dissimilar others will show the most negative effects as immediate responses. These predictions led to the following hypotheses.
Hypotheses

The present study was designed to test the following hypotheses:

Hypothesis 1: Individuals with high appearance schematicity will be more distressed than those with low appearance schematicity.

Hypothesis 2: Individuals will show greater distress on mood and body/appearance satisfaction after being exposed to similar rather than dissimilar attractive images.

Hypothesis 3: Individuals with high actual-ideal appearance discrepancies will show poorer self-evaluation of attractiveness yet greater investment in their appearance than those with low self-ideal appearance discrepancies.

Hypothesis 4: Individuals with high appearance schematicity will show lower self-esteem scores than those with low appearance schematicity.

Hypothesis 5: Individuals with high appearance schematicity will show lower appearance evaluation scores than those with low appearance schematicity.

Hypothesis 6: Individuals with high appearance schematicity will show greater appearance orientation scores than those with low appearance schematicity.

Hypothesis 7: Individuals with high appearance schematicity who are exposed to attractive images of similar others will show the greatest distress on mood and body/appearance satisfaction.
CHAPTER 3

DESIGN AND METHODOLOGY

This chapter deals with the experimental design, with the operationalization of the variables, and with the procedures. It includes subject selection, selection of stimuli, measurements, experimental procedures and the design of the study.

Overview of the Research Purpose

The purpose of this study was to examine whether the extent to which women respond to upward comparison targets in the area of appearance was related to the importance of appearance as generalized knowledge. It was expected that women with appearance schemas experience more negative mood responses and show lower self-esteem and poorer appearance-evaluation attitudes when exposed to attractive images of others, particularly similar others. The question was, then, to what extent would individuals show positive and negative mood responses and self-ratings of self-esteem and appearance evaluation as a function of appearance self-schematicity and type of comparison target (similar/dissimilar)?

Pilot Study

A pilot study was employed to pretest (1) the Selves Questionnaire and (2) stimulus photos to be used in the primary study.
**Sample Characteristics.** Participants were 65 female students enrolled in an introductory textiles class. They were given extra credit for their participation. Completed responses from 56 female students were used as data. The average age of the participants was 21 years old with a range of 19 to 29.

**Instruments.** Individuals' appearance self-schematicity was measured by the Selves Questionnaire (Higgins, Klein, & Strauman, 1985). Visual Analogue Scales were used to measure individuals' mood distress.

*The Selves Questionnaire.* The researcher attempted to use the Selves Questionnaire (Higgins, Klein, & Strauman, 1985; Higgins et al., 1986; Strauman et al., 1987; Strauman et al., 1991) as a way to measure individuals' appearance self-schematicity. This instrument is mainly used to measure self-discrepancies between self-concept (actual self) and self-guides (ideal or ought self) on various dimensions. This measure asks subjects to list up to 10 traits or attributes of themselves pertaining to each of the three self-states based on own and other standpoint (actual/own, actual/other, ideal/own, ideal/other, ought/own, ought/other).

*Visual Analogue Scales (VAS).* Visual analogue scales (Heinberg & Thompson, 1992; 1995) were used to measure immediate changes in mood and body satisfaction following exposure to attractive images. Subjects are asked to indicate their disturbance level on a 10 cm (100 mm) line by placing a short vertical slash to reflect their current mood state. The range of responses is labeled from "NO" to "EXTREME." The instrument uses a 100-point scale, and higher scores indicate greater disturbance. VAS scales used in the pilot study were VAS-Anxiety, VAS-Depression, VAS-Anger, VAS-Body Dissatisfaction, and VAS-Physical Attractiveness. On either side of a 100-mm line.
are placed the anchors of no anxiety/extreme anxiety, no depression/extreme depression, no anger/extreme anger, no body dissatisfaction/extreme body dissatisfaction, and no physical attractiveness/extreme physical attractiveness. The VAS-physical attractiveness was constructed by the researcher to measure self-evaluation of physical attractiveness and was included using the same format as the VAS-items. The VAS-depression, VAS-anxiety, and VAS-anger have been found to correlate significantly with the Profile of Mood States (POMS; McNair, Lorr & Droppelman, 1971)-Depression/Dejection subscale ($r = .68, p < .01$), the POMS-Tension/Anxiety subscale ($r = .60, p < .01$), and the POSM-Anger/Hostility subscale ($r = .53, p < .01$), respectively (See Heinberg et al., 1995).

**Stimuli.** Stimuli for the research were scanned images of color photos (a total of 18) of unknown female models; the photos were chosen from various magazines. After scanning, each of the photos was sized approximately 2' x 2' to fit the 8' x 11' paper as a unit of nine photos. Thus, two sheets of stimulus photos were prepared for the pilot study.

**Procedure.** The study was conducted as a small group (approximately 10) in each of the five laboratory sessions of a textiles class. The same subjects were expected to participate twice over a one week period. In the initial session, they were given a questionnaire packet, which included demographic information questions and the Selves Questionnaire. Based on the overall number of appearance-related constructs generated by subjects when they completed the Selves Questionnaire, subjects were divided into those who listed one or more appearance-related constructs (i.e., appearance schematic) ($N = 30$) and those who listed no appearance-related constructs (i.e., appearance aschematic) ($N = 26$). Half of the subjects in each group were randomly assigned to view
similar stimuli and the rest of the subjects were randomly assigned to view dissimilar stimuli for the follow-up session. Approximately one week later, each of the subjects was given a questionnaire packet along with the stimulus photos. The questionnaire packet included photo-rating questions and measures of mood (i.e., visual analogue scales) as well as the experimenter generated “VAS-physical attractiveness” item. Two sets of the same stimulus photos were presented to subjects; however, photos were identified as similar stimuli (college students) or dissimilar stimuli (professional models). Thus, similarity of stimuli was manipulated by information on the photo-rating sheets, e.g., “you are provided with images of college students” for similar stimuli and “you are provided with images of professional models” for dissimilar stimuli. Photo-rating questions were intended as a way for subjects to focus on each of the photos so that they would compare themselves to those attractive images. The photo rating questions asked subjects to choose the most appropriate terms for skin, hair, or eye colors after viewing stimulus images.

Design of the Study. A 2 (similarity of stimuli) x 2 (schematicity) multivariate analysis of variance was used to analyze the effects of the independent variables on the dependent measures of mood, body dissatisfaction and physical attractiveness. Thus, independent variables were similarity of stimulus photos (similar or dissimilar) and appearance self-schematicity (appearance-related constructs or no appearance-related constructs).

Results of the Study. The results of the study were not significant across dependent measures; however, the overall number of appearance-related constructs listed in the Selvess Questionnaire was quite high. For example, 40 subjects listed at least one or more appearance-related constructs in any of their self-states (actual, ideal or ought) (62%) and
38 subjects listed at least one or more appearance-related constructs in any of their self-guides (ideal or ought) (59%). The most frequent appearance-related constructs were in the order of thin/skinny, beautiful/pretty, attractive, and physically fit.

Suggestions for the Primary Study. Since subjects looked at the same set of stimulus photos of similar and dissimilar others, the lack of reinforcement for the extent of similarity of stimulus photos may have been a problem in the experiment. To guarantee that stimuli were perceived as subjects' peers or professional models, each stimulus photo was so labeled in the primary study. The Selvès Questionnaire, which is best known for the measurement of discrepancies between dimensions of self, may not have been an effective measure for appearance self-schematicity. Therefore, the Selvès Questionnaire was replaced by the Appearance Schematicity Inventory developed by Cash and Labarge (1996). Concerning sample selection for the pilot study, it is possible that college women majoring in textiles and clothing are more schematic to appearance than women in other majors. In order to eliminate these problems, subjects for the primary study were selected from a variety of majors. To measure immediate mood changes following exposure to attractive images of others, the Joy and Distress Scales and subscales of The Differential Emotions Scale (Bradt, 1972) were added, in addition to the VAS. These scales are discussed in more detail later in this chapter.

Primary Study

Subjects

After receiving Human Subjects Institutional Review Board’s approval (#98B0049) for research involving human subjects, a total of one hundred two female
college students enrolled in various majors in different colleges at the Ohio State University were recruited for this study. The study was conducted from June to July in 1998. Subjects were recruited through (a) advertisements posted on bulletin boards of different college buildings (see Appendix N) or (b) oral solicitation (see Appendix O) in several courses offered at the department of Consumer and Textile Sciences. Although recruited as volunteers, subjects were given incentives of cash prize drawings for their participation. Those who called to express their interest in participation were given brief explanations about the research (see Appendix P) before they volunteered for participation.

**Instruments**

All students were requested to complete the following standardized instruments: the Appearance Schemas Inventory (ASI), the Body-image Ideals Questionnaire (BIQ), the Joy and Distress Scales, Visual Analogue Scales (VAS), the Janis-Field Feelings of Inadequacy Scale, Rosenberg’s Self-Esteem Scale, Subscales of the Multidimensional Body-Self Relations Questionnaire (MBSRQ) (Appearance Evaluation and Appearance Orientation). These instruments are known to be reliable to assess the following variables, respectively: appearance schematocity, self-ideal discrepancy on the domain of appearance, the level of distress on mood and body/overall appearance dissatisfaction, social self-esteem, global self-esteem, evaluation of attractiveness, and investment in appearance. In addition to information obtained from the above instruments, subjects were asked to provide demographic information about themselves and to rate questionnaire items for the manipulation check.
Appearance Schematicity

Appearance Schemas Inventory (ASI). The ASI (Cash et al., 1996) assesses cognitive assumptions and core beliefs about the importance, meaning, and influence of appearance in one's life. Examples include: "What I look like is an important part of who I am," "If I could look just as I wish, my life would be much happier," and "My appearance is responsible for much of what has happened to me in my life." Fourteen items on the ASI are rated on a 5-point scale (1=strongly disagree, 5=strongly agree). Higher scores indicate that an individual is more schematic toward appearance. The ASI showed internal consistency of .82 and .79 for male and female college students, respectively (Cash, 1990). Its 1-month test-retest stability for female college students was .71 (Cash, 1990). A complete copy of this instrument can be found in Appendix B.

Self-Discrepancy on Physical Attributes

Body-image Ideals Questionnaire (BIQ). The BIQ (Cash et al., 1995b) measures self-perceived discrepancies from and the importance of internalized ideals for multiple physical characteristics. Thus, the BIQ is comprised of three dimensions: discrepancy (α=.75), importance (α=.82), and weighted discrepancy (discrepancy x importance) (α=.77) (Cash et al., 1995b). Ten attributes for physical characteristics are: height, skin complexion, hair texture and thickness, facial features, muscle tone and definition, body proportions, weight, chest size, physical strength, and physical coordination. For each attribute, subjects are asked to think about their personal ideal (how they wish or prefer to be) and evaluate how well their body resembles or matches this ideal (their actual self). Then, the discrepancy between the two is rated on a scale as follows: -1 (exactly as I
am), +1 (almost as I am), +2 (fairly unlike me), and +3 (very unlike me), with a range of scores from −10 to 30. A higher score for each of the physical attributes means a higher discrepancy between actual and ideal body image. The strength or importance for each of the physical characteristics is measured by a scale as follows: 0 (not important), 1 (somewhat important), 2 (moderately important), and 3 (very important). Thus, the total score ranges from 0 to 30. The weighted discrepancy is measured by multiplying scores on discrepancy with scores on importance and then summing; thus, scores could range from −30 to 90. A complete copy of this instrument can be found in Appendix C.

The Level of Mood Distress

Joy and Distress Scales. The Joy and Distress measures are two of the three subscales of the Differential Emotions Scale (Izard, 1972). These scales are composed of 5-point adjective rating scales asking subjects to indicate how they are feeling on each of the scales at that time; the amount of affect can vary from 1 (very slightly or not at all) to 5 (very strongly). The Joy scale consists of the adjectives happy, joyful, and delighted, while the Distress scale is composed of the adjectives discouraged, sad, and downhearted. The total score could range from 3 to 15 for each scale. Scores on happy, delighted, and joyful are summed for a composite measure of joy. Likewise, scores on discouraged, sad, and downhearted are summed for a composite measure of distress. Measures of internal consistency for the Joy and Distress measures have been found to be .80 and .90, respectively (see Izard, 1972). A complete copy of this scale can be found in Appendix G.
**Visual Analogue Scales (VAS).** The same instrument for the pilot study was used for the primary study. The five Visual Analogue Scales were used for the current study: VAS-Anxiety, VAS-Depression, VAS-Anger, VAS-Body Dissatisfaction, VAS-Overall Appearance Dissatisfaction (Heinberg et al., 1995). A complete copy of this instrument can be found in Appendix H.

**Self-Esteem**

**Janis-Field Self-Esteem Scale (JFSES).** The revised Janis-Field Self-Esteem Scale (Eagly, 1967; Janis & Field, 1959) was used to measure subjects' social self-esteem following exposure to attractive images. This scale, which was originally designed to measure feelings of inadequacy in studies relating to an individual's persuasibility, has been widely used as a general measure of social self-esteem. It contains 20 items, 10 of which are keyed in a positive direction and 10 of which are keyed in a negative direction. Thus, the revised scale was balanced for response-bias (Robinson & Shaver, 1973). Subjects are asked to rate on a 5-point scale (1=very often, 5=never) how comfortable they are in various social situations. The total score is obtained by reversing the items keyed in a positive direction and then summing the item scores. The total score could range from 20 (low self-esteem) to 100 (high self-esteem). This scale has split-half reliability of .72 (1967) and .88 (1969) (cited in Robinson et al., 1972) and test-retest reliability of .92 (Campbell, Chew & Scratchley, 1991). A copy of this instrument can be found in Appendix I.

**Self-Esteem Scale.** Rosenberg’s (1965) Self-Esteem Scale is a reliable (.85) (Silber & Tippett, 1965) and valid (see Silber et al., 1965) instrument measuring several
areas of self-worth. It is composed of 10 items which were measured on a 5-point scale 
(1=strongly disagree, 5=strongly agree). Five of the ten items run in a negative direction 
and thus should be reversed when summing the total score. Thus, the total score could 
rangefrom 10 (low self-esteem) to 50 (high self-esteem). A copy of this scale can be 
found in Appendix K.

Self-Evaluation of Attractiveness and Investment in Appearance

Subscales of the Multidimensional Body-Self Relations Questionnaire (MBSRQ) 
(Brown, Cash, & Mikulka, 1990; Cash, 1990; Cash, Winstead, & Janda, 1986) were used 
to measure subjects’ body image in relation to appearance. As the modified version of 
the Body-Self Relations Questionnaire (BSRQ; Winstead & Cash, 1984), the MBSRQ is 
a well-validated body-image measure containing 69 items in 10 subscales concerning 
appearance, fitness, and health. The MBSRQ has a reliability of .91 (Cash, 1990). 
Among the MBSRQ’s subscales, Appearance Evaluation and Appearance Orientation 
were selected to examine subjects’ self-evaluation of attractiveness and cognitive-
behavioral investment toward appearance.

Appearance Evaluation. The Appearance Evaluation scale assesses the extent to 
which individuals are satisfied with their physical attractiveness. This scale is comprise 
of 7 statements concerning appearance asking subjects to indicate the extent to which 
each statement pertains to them personally on a 5-point scale (1=definitely disagree, 
5=definitely agree). Examples of the items are “Most people would consider me good-
looking” and “I like my looks just the way they are.” The range of the total score is from 
7 (low appearance evaluation) to 35 (high appearance evaluation). Appearance


Evaluation has internal consistency of .88 and its 1-month stability is .91 (see Cash et al. 1995b). A copy of this scale can be found in Appendix I.

**Appearance Orientation.** Twelve statements in Appearance Orientation assess cognitive importance of and behavioral improvement or maintenance of one’s appearance. This subscale has an internal consistency of .85 and a stability of .90 (see Cash et al., 1995b). Sample items are “I am always trying to improve my physical appearance” and “I check my appearance in the mirror whenever I can.” Items are measured on a 5-point scale (1=strongly disagree, 5=strongly agree), and the total score on Appearance Orientation could range from 12 (low appearance orientation) to 60 (high appearance orientation). A copy of this scale can be found in Appendix I.

**Demographic Questionnaire.**

This nonstandardized questionnaire asked for subjects' background information such as age, major, ethnic background, current height and weight. The demographic questionnaire can be found in Appendix A.

**Manipulation Checks Questionnaire.**

In order to ensure that all subjects in the study perceived the experimental manipulations (similar vs. dissimilar) as intended, they were asked to rate a total of two questions on a 9-point Likert-scaled item at the end of the experiment. First, subjects were asked to rate, from not at all similar to very similar, to what degree they perceived stimulus photos similar to themselves in terms of occupation. Second, they were asked to rate, from not at all similar to very similar, to what degree they perceived stimulus photos
similar to themselves in terms of attractiveness. A copy of the manipulation check questions can be found in Appendix M.

Stimulus Materials

Stimuli for the research were scanned images of color photographs of relatively unknown female models taken from fashion magazines and catalogues (e.g., Glamour, Marie Claire, Bazaar, Tweeds). Seven female graduate students majoring in Textiles and Clothing rated 40 photos on the dimension of physical attractiveness using a 7-point scale (1=extremely unattractive, 7=extremely attractive). A total of 16 photos judged as attractive (scale 6 or 7) were used as stimuli. The 16 photos were composed of 10 head-and-shoulders shots, 2 head-and-shoulder shots, and 4 head to toe shots. Models in the photos, especially those in the head to toe shots, were all judged to be thin. Each of the 16 photos was scanned to eliminate background and to adjust the size of figures. Two sets of 16 photos were prepared for two experimental conditions: physically attractive college students (Appendix D) and physically attractive models (Appendix E). One set of the sixteen photos was labeled as images of professional models and the other set of the same sixteen photos was labeled as college students. Labeling of similar (college students) or dissimilar others (professional models) was done for each individual photo, such as “Joanna from University of Kentucky” or “Jennifer from Ford Modeling Agency.” Stimulus photos for each condition were randomly bound in a folder, and each folder was numbered as 1 for college students and 2 for professional models.
Procedure

Subjects were assessed twice – once during an initial questionnaire session and then during a follow-up experimental session – within an interval of two weeks between sessions. Tasks were administered in small groups of five to ten subjects, but the stimulus photos in manipulation were distributed individually.

PART I: the initial session (June 5 through July 12)

In the initial session, subjects (a total of 102) were given the informed consent form (Appendix Q) upon their arrival at a room in Campbell Hall. After receiving brief introductory comments (Appendix R), subjects were instructed to read and sign two copies of the informed consent form, keeping one copy in their possession. Subjects understood that participation was voluntary and that confidentiality would be maintained. Then, they received the initial questionnaire packet, which included the Appearance Schemas Inventory and the Body-image Ideals Questionnaire as well as demographic questions. Subjects were asked to complete the scales as honestly as possible. As expected, it took about 20 to 25 minutes for each individual to fill out the questionnaire packet. Upon completion of the questionnaire packet, subjects were able to enter their names in a drawing with a total of $150 in cash prizes (four $10, three $20, and one $50). A box was set up in the room; when a student returned her questionnaire, the researcher gave her a raffle ticket (Appendix T) to complete and deposit in the box. Before they left the room, the researcher encouraged subjects to sign up for the follow-up session. Although their participation was voluntary, they were told that the follow-up session would provide another chance for them to win cash prizes.
Scores for each item of the Appearance Schemas Inventory were summed and then divided into two groups based on the median split of scores (Median = 37): those who had high scores (N = 45) and those who had low scores (N = 57). A median split was used to divide groups into high and low level of schemacity. Creating groups for variables by a median split is believed to be a common procedure in research on body image (Cash, Risal & Chapman, 1985; Heintberg et al., 1995). Each group of subjects in the high and low appearance-schemacity conditions was then divided in half. Half of each group was randomly assigned to similar stimuli (college peers) and the other half of each group was randomly assigned to dissimilar stimuli (professional models) for the follow-up experiment.

PART II: the follow-up session (June 20 through July 39)

Approximately two weeks after the initial session, subjects were recalled for the follow-up experiment. The time interval between administration of the Selves Questionnaire and the laboratory session was necessary to ensure that any effects from the lab experiment would be due to activation of self-schemas, which are chronic in nature, rather than due to priming effects from the initial questionnaire. A total of 96 participated in the follow-up session. After being assigned to a group based on the scoring from initial questionnaire sessions, each subject was given a folder of stimulus photos and a questionnaire packet of dependent measures coded by subject number and assigned group. Subjects were given brief instructions for completing the packet of measures and encouraged to ask questions regarding various measures (Appendix S).
This packet contained stimulus photo-rating questions as the first items of measurement so that subjects could focus on the images; it was hoped that by doing so, the individuals' body perceptions and appearance self-evaluations would be affected by those images. Questions regarding stimulus photos (see Appendix F) were selected so as not to reveal the initial intention of the study. Subjects were asked to identify physical colors of stimulus images (i.e., skin color, hair color, eye color) in head-and-shoulder shots and head-and-torso shots. Additionally, they were asked to rate the attire of stimulus images on the level of formality and fashionability. This packet also contained the Joy and Distress Scales and the Visual Analogue Scales as the first dependent measures to examine immediate mood responses following the manipulation. Other dependent measures in this packet were presented in the following order: Janis-Field Self-Esteem Scale, Appearance Evaluation, Rosenberg's Self-Esteem Scale, and Appearance Orientation. Upon completion of the instruments, subjects were debriefed (Appendix U) and were given an opportunity to ask questions. Another box was set up in the room, when a student returned her questionnaire, the researcher gave her a raffle ticket (Appendix T) to complete and deposit in the box in the same manner as the first session. Therefore, a subject had twice as many chances to win a prize if she participated in both sessions, thus ensuring a high rate of participation in the study.

Design of the Study

One-way between subjects and two-way between subjects designs were used for the experiment. There were three independent variables. The first independent variable, a blocked between-subjects variable, was appearance schematicity, and it consisted of
two levels: high appearance schematicity and low appearance schematicity. The second independent variable, a randomized between-subjects variable, was similarity of attractive images of others; it contained two levels: similar others (college students) and dissimilar others (professional models). Another independent variable studied was a blocked between-subjects variable, actual-ideal (weighted) appearance discrepancy, featuring two levels: high self-ideal appearance discrepancy and low self-ideal appearance discrepancy. A total of eleven dependent measures were employed in the study. They were the Joy scale, the Distress scale, Five Visual Analogue Scales (VAS-Anxiety, VAS-Depression, VAS-Anger, VAS-Body Dissatisfaction, VAS-Overall Appearance Dissatisfaction), Janis-Field Self-Esteem Scale, Rosenberg's Self-Esteem Scale, Appearance Evaluation, and Appearance Orientation.

A 2 by 2 between subjects design, featuring similarity of stimuli (similar others vs. dissimilar others) by appearance schematicity (high appearance-schematicity vs. low appearance-schematicity), was conducted on all the dependent measures to test hypotheses 1, 2, 4, 5, 6, and 7. This produced the following cells: (1) high appearance-schematicity/similar stimuli; (2) high appearance-schematicity/dissimilar stimuli; (3) low appearance-schematicity/similar stimuli; (4) low appearance-schematicity/dissimilar stimuli. A one-way between subjects design, using actual-ideal (weighted) appearance discrepancy (high discrepancy vs. low discrepancy), was conducted to test hypothesis 3. The dependent measures for this design were Appearance Orientation and Appearance Evaluation.
Data Analysis

The data were analyzed by descriptive and parametric statistics using SPSS statistical programs. Descriptive statistics were used to summarize overall scores for each of the measures and generated means, standard deviations, minima and maxima. To test hypotheses constructed in Chapter 3, multivariate analysis of variance was used to examine differences. The effects detected in the multivariate analysis of variance were examined separately for each of the dependent variables using univariate analyses of variance. Furthermore, the relationships between independent and dependent variables were explored by differences in means. The data were subjected to a priori tests for cell comparisons.
CHAPTER 4

RESULTS

This chapter first presents demographic information about subjects. It then examines each dependent variable, first presenting descriptive statistics, then presenting analysis of variance results for each hypothesis.

Overview of Demographics

Out of one hundred two college student subjects, responses from a total of eighty-eight subjects were used for data analyses. Subjects who dropped out of the study after the initial session, those who did not complete the questionnaire, and those whose ages were over 28 years old were removed from the final data analyses. Since the intention of the study was to measure young women’s affective responses upon exposure to upward comparison targets of similar (college students) or dissimilar (professional models) others, it was necessary to limit the age range. Details about the eighty-eight female students with diverse demographic backgrounds are shown in Table 2. The subjects’ ages ranged from 18 to 28, with a mean of 21. Regarding ethnic background, the sample included 46 subjects of Caucasian ethnicity, 9 subjects of African ethnicity, 12 subjects
of Asian ethnicity, and one subject of Hispanic ethnicity. The majority of the subjects were from the College of Human Ecology (57), while other subjects were enrolled in such colleges as Arts and Sciences (13), Business (6), Arts (3), and others. Subjects' diverse majors in different colleges are shown in Table 2. The range of their current height was 58 (inches) to 71 (inches), with an average of 65 (inches). Subjects' current weights ranged from 95 (lbs) to 200 (lbs), with an average of 132.5 (lbs). However, subjects desired an ideal weight of 95 (lbs) to 160 (lbs), with an average of 121.8 (lbs). Subjects' overall scores for demographic information are shown in Table 3.

<table>
<thead>
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<th>N</th>
<th>Percent</th>
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</tr>
<tr>
<td>19</td>
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<td>9.1</td>
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<tr>
<td>28</td>
<td>3</td>
<td>3.4</td>
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<table>
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<td>75</td>
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<tr>
<td>African</td>
<td>9</td>
<td>10.2</td>
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<tr>
<td>Asian or Pacific Islander</td>
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<td>13.6</td>
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<td>Hispanic</td>
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Table 2
Frequencies of Demographic Information
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<th>College</th>
<th>Major</th>
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<tr>
<td>Human Ecology</td>
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<td></td>
<td>Family Resource Management (12)</td>
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<td></td>
<td>Child and Family Studies (2)</td>
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<td></td>
<td>Human Nutrition and Food Management (3)</td>
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<td></td>
<td><strong>Total (57)</strong></td>
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<td>Business</td>
<td>Marketing (2)</td>
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<td></td>
<td>Finance (3)</td>
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<td></td>
<td>Transportation and Logistics (1)</td>
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<td></td>
<td><strong>Total (6)</strong></td>
</tr>
<tr>
<td>Arts and Sciences</td>
<td>Psychology (3)</td>
</tr>
<tr>
<td></td>
<td>Sociology (2)</td>
</tr>
<tr>
<td></td>
<td>Geography (1)</td>
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<td>Speech and Hearing Science (1)</td>
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<td>Linguistics (3)</td>
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<td>Women's Studies (1)</td>
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<td></td>
<td><strong>Total (13)</strong></td>
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<td>Art and Design (2)</td>
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<td>Music (1)</td>
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<td></td>
<td><strong>Total (3)</strong></td>
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<td>Food Science (1)</td>
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<td></td>
<td>Wildlife Management (1)</td>
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<td><strong>Total (4)</strong></td>
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<td>Education (1)</td>
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<tr>
<td>Journalism</td>
<td>Journalism (2)</td>
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<td>UVC (University College)</td>
<td>Undecided (2)</td>
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<td></td>
<td><strong>Total (88)</strong></td>
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*Table 2 (cont'd)*

Frequencies of Demographic information

89
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<th>Minimum</th>
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<th>Mean</th>
<th>Standard Deviation</th>
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<td>Age</td>
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<td>28</td>
<td>21</td>
<td>2.2</td>
</tr>
<tr>
<td>Height (inches)</td>
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<td>71</td>
<td>65</td>
<td>2.8</td>
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<tr>
<td>Current Weight (lbs)</td>
<td>95</td>
<td>200</td>
<td>132.5</td>
<td>20.6</td>
</tr>
<tr>
<td>Ideal Weight (lbs)</td>
<td>95</td>
<td>160</td>
<td>121.8</td>
<td>14.3</td>
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</table>

Table 3
Overall Scores for Demographic Information

Overview of Overall Scores for Measures of Variables

**Appearance Schematicity**

*Appearance Schematicity Inventory*

The total score for the Appearance Schematicity Inventory ranged from 18 to 55, with a mean of 37.7 (SD = 8.1) (see Table 4). The ASI showed internal consistency of .81 for this study. Higher scores on Appearance Schematicity indicate that one is schematic to appearance. Subjects were divided into two groups based on a median (27) split of overall scores: those who have high appearance schematicity (scores 38 - 55) (N = 38) and those who have low appearance schematicity (scores 18 - 37) (N = 50). Subjects with low appearance schematicity had a mean of 31.98 (SD = 4.93) and those with high appearance schematicity showed a mean of 45.26 (SD = 4.55). Unlike an expectation that the majority of students majoring in textiles and clothing would be highly schematic to appearance, they revealed about an equal number of high (N = 21) and low schematicity (N = 19).
Self-Discrepancy on Physical Attributes

Body-image Ideals Questionnaire

The BIQ measuring self-perceived discrepancies for ten physical attributes produced scores from three dimensions: Discrepancy (α=.75), Importance (α=.85), and Weighted Discrepancy (α=.77). The Discrepancy score (ranging from -6 to 25 out of a possible range of -10 to 30) had a mean of 8.3 (SD = 7.1) of the actual-ideal discrepancies on 10 attributes. The higher a discrepancy score, the greater the discrepancy between actual and ideal self attributes. The Importance score (ranging from 4 to 30 out of a possible range of 0 to 30) had a mean of 17.3 (SD = 6.1) of the importance of the personal ideals, with the higher score indicating the greater importance. Finally, the Weighted Discrepancy score (ranging from -12 to 66 out of a possible range of -30 to 90) had a mean of 18.7 (SD = 5.9) of the Discrepancy x Importance cross-products, with scores ranging from very important self-ideal congruities to very important discrepancies. Any trait discrepancies multiplied by 0 (not important) for importance were removed from the cross-products, as suggested by Cash et al. (1995b). The descriptive statistics for the Body-image Ideals Questionnaire can be found in Table 4.

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASI BIQ</td>
<td>18</td>
<td>55</td>
<td>37.7</td>
<td>5.1</td>
</tr>
<tr>
<td>Discrepancy</td>
<td>-6</td>
<td>25</td>
<td>8.3</td>
<td>7.1</td>
</tr>
<tr>
<td>Importance</td>
<td>4</td>
<td>30</td>
<td>17.3</td>
<td>6.1</td>
</tr>
<tr>
<td>Weighted</td>
<td>-12</td>
<td>66</td>
<td>18.7</td>
<td>15.9</td>
</tr>
</tbody>
</table>

Table 4
Overall Scores for Measures of Schematicity and Self-Discrepancy
The Level of Mood Distress

Joy and Distress Scales

The composite score for the adjectives happy, joyful, and delighted on the Joy scale ranged from 3 to 14 (out of a possible range of 3 to 15), with a mean of 8.38 (SD = 2.99) (see Table 5). The higher a score, the more positive the affect of the subjects. Subjects' scores on the Distress scale ranged from 3 to 15 (out of a possible range of 3 to 15), with a mean of 5.21 (SD = 2.34) (see Table 5). Regarding the composite score for the adjectives discouraged, sad, and downhearted, the higher a score, the more distressed the affect of the subjects. The Joy and Distress scales showed internal consistency of .88 and .76, respectively.

Visual Analogue Scales

When employing VAS scales, subjects were asked to indicate their level of mood and body/appearance satisfaction measures on a 100 mm line (100-point scale). Five Visual Analogue Scales (Anxiety, Depression, Anger, Body Dissatisfaction, and Overall Appearance Dissatisfaction) were used to examine subjects' mood distress immediately after being exposed to attractive images of others. The greater the number of points for each of the mood traits, the more disturbed the level of mood. The total scores for VAS-Anxiety ranged from 0 to 100, with a mean of 44.15 (SD = 39.32). The mean score for VAS-Depression was 23.43 (SD = 22.48), with a range of 0 to 85. The scores for VAS-Anger ranged from 0 to 100, with a mean of 16.40 (SD = 21.39). The scores for VAS-Body Dissatisfaction showed a range of 0 to 98, with a mean of 42.77 (SD = 30.76). Finally, the VAS-Overall Appearance Dissatisfaction scores ranged from 0 to 92, with a
mean of 34.90 (SD = 25.12). The level of reliability for VASs was .82. The descriptive statistics for the levels of mood distress can be found in Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joy scale</td>
<td>3</td>
<td>14</td>
<td>8.38</td>
<td>2.99</td>
</tr>
<tr>
<td>Distress scale</td>
<td>3</td>
<td>15</td>
<td>5.20</td>
<td>2.14</td>
</tr>
<tr>
<td>VAS - Anxiety</td>
<td>0</td>
<td>100</td>
<td>44.15</td>
<td>29.52</td>
</tr>
<tr>
<td>VAS - Depression</td>
<td>0</td>
<td>85</td>
<td>23.43</td>
<td>22.48</td>
</tr>
<tr>
<td>VAS - Ager</td>
<td>5</td>
<td>100</td>
<td>16.40</td>
<td>21.39</td>
</tr>
<tr>
<td>VAS - Body</td>
<td>0</td>
<td>98</td>
<td>42.77</td>
<td>30.76</td>
</tr>
<tr>
<td>Dissatisfaction</td>
<td>0</td>
<td>92</td>
<td>34.90</td>
<td>25.12</td>
</tr>
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</table>

Table 5
Overall Scores for Measures of Mood Distress

Self-Esteem

Janis-Field Self-Esteem Scale

This scale was used to measure subjects' social self-esteem. Scores on the Janis-Field scale (x = .90) ranged from 36 to 92 (out of possible range of 20 to 100), with a mean of 69.19 (SD = 11.23) (see Table 6). The higher a score, the greater the extent of social self-esteem.

Rosenberg's Self-Esteem Scale

On the Rosenberg scale, a general measure of global self-esteem, the higher a score, the more positive is the self-esteem of a subject. The total scores ranged 17 to 56.
(out of a possible range of 10 to 50), with a mean of 39.56 (SD = 7.35) (see Table 6).

The reliability of Rosenberg’s Self-Esteem Scale was .89.

<table>
<thead>
<tr>
<th>Janis-Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Esteem</td>
<td>36</td>
<td>92</td>
<td>69.19</td>
<td>11.23</td>
</tr>
<tr>
<td>Rosenberg Self Esteem</td>
<td>17</td>
<td>50</td>
<td>39.56</td>
<td>7.39</td>
</tr>
</tbody>
</table>

Table 6
Overall Scores for Measures of Self-Esteem

Self-Evaluation of Attractiveness and Investment in Appearance

Appearance Evaluation

The total score for the 7-item Appearance Evaluation (α=.85) of the MBSRQ ranged from 10 to 35 out of a possible range of 7 to 35. The subscale measures the extent to which individuals are satisfied with their physical attractiveness; the higher the score, the more favorable the evaluation of overall appearance. The mean and the standard deviation of Appearance Evaluation were 23.00 and 5.36, respectively (see Table 7).

Appearance Orientation

The total score for the Appearance Orientation (α=.90) of the MBSRQ has a possible range of 12 to 60 based on 12 Likert scaled (1=Definitely disagree, 5=Definitely agree) items. The subscale measures importance of, as well as behavioral investment in, one’s appearance; the higher the score, the more individuals pay attention to their appearances and engage in appearance-managing behaviors. The mean for the
Appearance Orientation score was 43.70 (SD = 8.88), with a range of 21 to 60 (see Table 7).

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
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<tbody>
<tr>
<td>Appearance Evaluation</td>
<td>10</td>
<td>35</td>
<td>23.00</td>
<td>5.36</td>
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<tr>
<td>Appearance Orientation</td>
<td>21</td>
<td>60</td>
<td>43.70</td>
<td>8.88</td>
</tr>
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</table>

Table 7
Overall Scores for Measures of Appearance Evaluation and Appearance Orientation

Manipulation Checks

Subjects completed a manipulation check to examine the extent to which they perceived stimulus photos to be similar to themselves in terms of occupation and attractiveness. Before the manipulation was given, subjects were blocked into two groups – those who had high appearance schematicity and those who had low appearance schematicity. Subjects in each of the two groups were randomly assigned to view either similar or dissimilar (occupation) attractive others. Two one-way analyses of variance (ANOVA) were used to test the perceived similarity of stimulus photos on occupation and attractiveness. The experimental manipulation of stimulus photos served as the independent variable with two levels: similar and dissimilar stimulus photos. The dependent variable for each of the ANOVA was the perceived similarity of occupation and the perceived similarity of attractiveness of stimulus photos, respectively. As expected, there was a significant main effect for similarity of stimuli on the perceived similarity of occupation \( F(1, 86) = 6.010, p < .05 \). Subjects who were exposed to...
photos labeled with a modeling agency affiliation perceived the photos to be more
dissimilar to themselves ($M = 4.33$) than subjects who were exposed to models in photos
labeled with a student affiliation ($M = 5.42$). It was expected that there would be no
difference on the perceived similarity of attractiveness between subjects who are exposed
to similar and dissimilar others. This expectation was also supported; there was no
significant main effect for similarity on the perceived similarity of attractiveness [$F (1, 86) = .003, p < .96$]. Thus, subjects who were exposed to attractive images of similar or
dissimilar others did not differ in their perceptions of attractiveness of stimulus photos.

Two-way Multivariate and Univariate Analyses of Variance

To test hypotheses 1, 2, 4, 5, 6, and 7, subjects were divided into two groups
based on their level of appearance schematicity – (a) those who had high appearance
schematicity and (b) those who had low appearance schematicity. They were also
divided into two groups according to experimental stimuli – (a) those who were exposed
to attractive images of similar others and (b) those who were exposed to attractive images
of dissimilar others. The data were analyzed using a two-way between subjects
multivariate analysis of variance (MANOVA). Appearance schematicity and similarity
of stimuli served as two independent variables. Dependent variables were responses on
the Joy and Distress scales and five Visual Analogue Scales, Rosenberg's Self-Esteem
and Janis-Field Social Self-Esteem scales, Appearance Orientation, and Appearance
Evaluation.

There were no significant multivariate effects for the interaction between
appearance schematicity and similarity of stimuli, or for similarity of stimuli alone on the

96
dependent measures; however, the overall multivariate effect for appearance schemacticity was found to be significant \(F (7, 79) = 4.116, p < .001\) (see Table 8). Given that the multivariate statistics were significant for appearance schemacticity, the univariate analyses of variance were then examined to determine which dependent variables contributed to the multivariate main effect and to test each of the hypotheses.

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<tr>
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<th>df</th>
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<th>(p)</th>
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<td>11, 71</td>
<td>5.623</td>
<td>***.000</td>
</tr>
</tbody>
</table>

\(*p < .001\)

**Table 8**
Multivariate Effects for Appearance Schematicity

**Hypothesis 1:** Individuals with high appearance schemacticity will be more distressed than those with low appearance schemacticity.

To test hypothesis 1, i.e., the main effect of schemacticity on mood and body/appearance satisfaction measures, responses on the Joy and Distress scales and the five Visual Analogue Scales were analyzed using univariate analyses of variance from the two-way MANOVA. The univariate analyses of variance revealed significant main effects for appearance schemanticity on all the measures of mood and body/overall appearance dissatisfaction (see Table 9). There was a significant main effect for positive mood measured by the Joy scale, \(F (1, 81) = 4.44, p < .05, \eta^2 = 5.2%\). This indicates that women's schemacticity toward appearance affects the extent to which they experience positive affect after exposure to attractive others. \(\eta^2\) squared \((\eta^2)\) represents the variance in the dependent variable accounted for by the independent variable. Thus,
appearance schematicity accounted for 5.2% of the variance in positive mood. As expected, women who scored high on the measure of appearance schematicity experienced more distress \( M = 10.47 \) than those who scored low on the measure of appearance schematicity \( M = 9.08 \).

The effect for appearance schematicity on negative affect was measured by the Distress scale and also revealed a statistical significance, \( F(1, 81) = 3.05, p < .05, \text{Eta}^2 = 4.7\% \). Women who scored high on the measure of appearance schematicity were more distressed \( M = 5.78 \) than those who scored low on the measure of appearance schematicity \( M = 4.77 \). Thus, women’s appearance schematicity has a significant effect on the extent to which they feel negative affect. Appearance schematicity accounted for 4.7% of the variance in negative mood. Furthermore, significant main effects were achieved for appearance schematicity on all five items on the VAS scales: \( F(1, 81) = 4.95, p < .05, \text{Eta}^2 = 5.8\% \) for Anxiety; \( F(1, 81) = 15.37, p < .001, \text{Eta}^2 = 16\% \) for Depression; \( F(1, 81) = 7.16, p < .01, \text{Eta}^2 = 8.1\% \) for Anger; \( F(1, 81) = 19.98, p < .001, \text{Eta}^2 = 19.8\% \) for Body Dissatisfaction; and \( F(1, 81) = 17.17, p < .001, \text{Eta}^2 = 17.5\% \) for Overall Appearance Dissatisfaction. The following section discusses mean differences between high and low appearance schematicity groups for each of the main effects from the univariate analyses of variance on the five VASs.

Women who scored high on appearance schematicity revealed greater anxiety \( M = 51.42 \) than those who scored low on appearance schematicity \( M = 37.41 \) after being exposed to attractive images of others. Also, women who scored high on appearance schematicity exhibited greater depression \( M = 33.76 \) than those who scored low on appearance schematicity \( M = 15.76 \) after being exposed to attractive images. Women
who scored high on appearance schemacity had higher scores on the measure of Anger ($M = 23.18$) than those who scored low on appearance schemacity ($M = 11.24$) after being exposed to attractive images. Furthermore, women who scored high on appearance schemacity revealed higher body dissatisfaction ($M = 58.15$) than those who scored low on appearance schemacity ($M = 30.86$) after being exposed to attractive images. Finally, women who scored high on appearance schemacity were more dissatisfied with their overall appearances ($M = 46.67$) than those who scored low on appearance schemacity ($M = 25.55$). Thus, these outcomes from multivariate and univariate analyses of variance supported the first hypothesis.

<table>
<thead>
<tr>
<th>Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>$F$</th>
<th>$p$</th>
<th>Ec2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Mood</td>
<td>39.39</td>
<td>1.81</td>
<td>39.39</td>
<td>4.44</td>
<td>.038</td>
<td>5.2</td>
</tr>
<tr>
<td>Negative Mood</td>
<td>23.80</td>
<td>1.81</td>
<td>25.80</td>
<td>3.95</td>
<td>.056</td>
<td>4.7</td>
</tr>
<tr>
<td>Anxiety</td>
<td>4951.08</td>
<td>1.81</td>
<td>4951.08</td>
<td>4.95</td>
<td>.029</td>
<td>5.8</td>
</tr>
<tr>
<td>Depression</td>
<td>6517.04</td>
<td>1.81</td>
<td>6517.04</td>
<td>15.37</td>
<td>.000</td>
<td>16.0</td>
</tr>
<tr>
<td>Anger</td>
<td>3060.69</td>
<td>1.81</td>
<td>3060.69</td>
<td>7.16</td>
<td>.009</td>
<td>8.1</td>
</tr>
<tr>
<td>Body Dissatisfaction</td>
<td>16565.23</td>
<td>1.81</td>
<td>16565.23</td>
<td>19.98</td>
<td>.000</td>
<td>19.8</td>
</tr>
<tr>
<td>Overall Appearance</td>
<td>9857.15</td>
<td>1.81</td>
<td>9857.15</td>
<td>17.17</td>
<td>.000</td>
<td>17.5</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001

Table 9
Univariate Analyses of Variance for Hypothesis 1
Hypothesis 2: Individuals will show greater distress on mood and body/appearance satisfaction after being exposed to similar rather than dissimilar attractive images.

To test hypothesis 2, i.e., the main effect of similarity of stimuli on mood distress and body/overall appearance dissatisfaction, responses on the Joy and Distress scales and the five VAS scales are appropriately examined using univariate analyses of variance from the two-way MANOVA. However, the results of multivariate analysis of variance did not reveal a significant multivariate effect for similarity of stimuli on the dependent measures \( F(11, 71) = 1.22, p < .29 \). Thus, the second hypothesis was not supported.

One-way Multivariate and Univariate Analyses of Variance

To test hypothesis 3, i.e., the main effect of actual-ideal appearance discrepancies on self-evaluation of attractiveness and importance of one's appearance was analyzed using a one-way between subjects MANOVA. The MANOVA was tested twice (a) first, using the actual-ideal self DISCREPANCY as an independent variable and (b) second, using the actual-ideal self WEIGHTED DISCREPANCY as an independent variable. For each of the analyses, subjects were divided into two groups based on a median split of scores (\( M = 7 \)) for DISCREPANCY and a median split (\( M = 15 \)) for WEIGHTED DISCREPANCY, respectively. Thus, subjects were those who have high actual-ideal self DISCREPANCIES (or WEIGHTED DISCREPANCIES) (\( N = 44 \)) and those who have low actual-ideal self DISCREPANCIES (or WEIGHTED DISCREPANCIES) (\( N = 44 \)) on the domain of appearance. Appearance Evaluation (measuring self-evaluation of attractiveness) and Appearance Orientation (measuring investment in one's appearance) were used as the dependent variables in each case.
Hypothesis 3: Individuals with high actual-ideal appearance discrepancies will show poorer self-evaluation of attractiveness yet greater investment in their appearance than those with low actual-ideal appearance discrepancies.

There were significant overall multivariate main effects for both actual-ideal self DISCREPANCIES [F (2, 84) = 12.33, p < .001] and actual-ideal self WEIGHTED DISCREPANCIES [F (2, 84) = 11.18, p < .001] on the dependent measures of Appearance Evaluation and Appearance Orientation (see Table 10). This indicates that women's actual-ideal self-discrepancies toward appearance affects the extent to which they evaluate their bodies and invest their thoughts and behaviors in achieving an ideal appearance.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Wilks'</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discrepancy</td>
<td>.773</td>
<td>2, 84</td>
<td>12.33</td>
<td>***.000</td>
</tr>
<tr>
<td>Weighted Discrepancy</td>
<td>.790</td>
<td>2, 84</td>
<td>11.18</td>
<td>***.000</td>
</tr>
</tbody>
</table>

Table 10: Multivariate Analyses of Variance for Hypothesis 3

The univariate analyses of variance revealed significant main effects for actual-ideal self DISCREPANCIES on Appearance Evaluation, F (1, 85) = 21.13, p < .001, $\hat{\beta}_{r^2}$ = 19.9% (see Table 11). The univariate analyses of variance also revealed significant main effects for actual-ideal self WEIGHTED DISCREPANCIES (Discrepancy x Importance) on Appearance Evaluation, F (1, 85) = 20.14, p < .001, $\hat{\beta}_{r^2}$ = 19.2% (see
Table 12. Taken together, the actual-ideal discrepancy alone or the self-ideal discrepancy multiplied by the importance for the physical attributes (i.e., the weighted discrepancy) appeared to affect evaluations of one’s own appearance (Appearance Evaluation).

In the MANOVA with actual-ideal DISCREPANCIES, women with high discrepancies scored lower on Appearance Evaluation ($M = 20.58$) than did those with low discrepancies ($M = 25.36$). Similar results were found in the MANOVA with actual-ideal WEIGHTED DISCREPANCIES (Discrepancy x Importance): women with high weighted discrepancies scored lower on Appearance Evaluation ($M = 20.63$) than did those with low weighted discrepancies ($M = 25.32$).

The univariate analyses of variance revealed significant main effects for actual-ideal DISCREPANCIES and actual-ideal WEIGHTED DISCREPANCIES on Appearance Orientation, $F(1, 85) = 6.85, p < .01, ES^2 = 7.5\%$ (see Table 11) and $F(1, 85) = 5.28, p < .05, ES^2 = 5.9$ (see Table 12), respectively. This indicates that women’s actual-ideal DISCREPANCIES and WEIGHTED DISCREPANCIES (Discrepancy x Importance) toward appearance affect the degree of the cognitive and behavioral importance placed on their appearance. As predicted, women with high actual-ideal DISCREPANCIES placed greater importance on their appearances ($M = 46.14$) than those with low actual-ideal DISCREPANCIES ($M = 41.32$). Women with high actual-ideal WEIGHTED DISCREPANCIES consistently placed greater importance on their appearances ($M = 45.86$) than those with low actual-ideal WEIGHTED DISCREPANCIES ($M = 41.59$). Thus, the third hypothesis was also supported.
<table>
<thead>
<tr>
<th>Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>497.35</td>
<td>1.85</td>
<td>497.35</td>
<td>21.13</td>
<td>**.006</td>
<td>19.9</td>
</tr>
<tr>
<td>Orientation</td>
<td>305.52</td>
<td>1.85</td>
<td>505.52</td>
<td>6.85</td>
<td>.010</td>
<td>7.5</td>
</tr>
<tr>
<td>*p &lt; .05, **p &lt; .001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 11**
Univariate Analyses of Variance for Discrepancy on Appearance Evaluation and Appearance Orientation

<table>
<thead>
<tr>
<th>Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>478.41</td>
<td>1.85</td>
<td>478.41</td>
<td>20.14</td>
<td>**.000</td>
<td>19.2</td>
</tr>
<tr>
<td>Orientation</td>
<td>396.43</td>
<td>1.85</td>
<td>396.43</td>
<td>5.28</td>
<td>.024</td>
<td>5.9</td>
</tr>
<tr>
<td>*p &lt; .05, **p &lt; .001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 12**
Univariate Analyses of Variance for Weighted Discrepancy on Appearance Evaluation and Appearance Orientation

If one does not place high cognitive importance on appearance, appearance is not so much a matter for the evaluation of self; thus, there would not be a high discrepancy between actual and ideal image of the self. In order to explore the relationship between cognitive importance placed on appearance and discrepancies between actual and ideal selves on appearance, correlations between appearance schematicity and discrepancies between the actual and ideal self were investigated. As expected, significant correlations...
were obtained between appearance schematicity and dimensions of appearance discrepancy as follows: schematicity/discrepancy \( r = .23, p < .05 \), schematicity/importance \( r = .39, p < .01 \), and schematicity/weighted discrepancy \( r = .31, p < .01 \).

**Continued Two-way Multivariate and Univariate Analyses of Variance**

As there was a significant multivariate effect for appearance schematicity on all the dependent measures in testing hypotheses 1 and 2, hypotheses 4, 5 and 6 were tested for univariate effects on the measures of global and social self-esteem, appearance evaluation, and appearance orientation.

**Hypothesis 4:** Individuals with high appearance schematicity will show lower self-esteem scores than those with low appearance schematicity.

To test hypothesis 4, i.e., the main effect of schematicity on self-esteem, univariate analyses of variance were examined from the two-way (schematicity by similarity) MANOVA. Univariate analyses of variance revealed significant main effects for appearance schematicity on social self-esteem, \( F(1, 81) = 10.75, p < .01 \), \( \eta^2 = .117 \% \) and global self-esteem, \( F(1, 81) = 25.56, p < .001 \), \( \eta^2 = .24 \% \) (Table 13). An examination of mean differences showed that women with high appearance schematicity had lower levels of social self-esteem (\( M = 64.73 \)) than those with low appearance schematicity (\( M = 72.30 \)). Similarly, women with high appearance schematicity had lower levels of global self-esteem (\( M = 35.24 \)) than those with low appearance schematicity (\( M = 42.47 \)). Thus, hypothesis 4 was supported.
Hypothesis 5: Individuals who are high in appearance schematicity will have lower appearance evaluation scores than those who are low in appearance schematicity.

To test hypothesis 5, i.e., the main effect of schematicity on appearance evaluation, univariate analyses of variance were examined from the two-way MANOVA. Univariate analyses of variance revealed significant main effects for appearance schematicity on appearance evaluation, $F(1, 81) = 9.48, p < .01, \text{ES}^2 = 10.5\%$ (Table 13). Thus, hypothesis 5 was also supported: women with high appearance schematicity evaluated their attractiveness lower ($M = 20.93$) than those with low appearance schematicity ($M = 24.45$).

Hypothesis 6: Individuals with high appearance schematicity will have higher appearance orientation scores than those with low appearance schematicity.

To test hypothesis 6, i.e., the main effect of schematicity on appearance orientation, univariate analyses of variance were examined from the MANOVA; significant main effects for appearance schematicity on appearance orientation were found ($F(1, 81) = 24.62, p < .001, \text{ES}^2 = 23.3\%$) (Table 13). Women with high appearance schematicity placed greater importance on their appearances ($M = 48.74$) than those with low appearance schematicity ($M = 40.05$); thus hypothesis 6 was also supported. The statistical results from testing hypotheses 4, 5, and 6 indicate that women’s schematicity toward appearance, activated by exposure to attractive image of others, affects their social and global self-esteem, appearance evaluation, and appearance orientation.
<table>
<thead>
<tr>
<th>Variable</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Self-Esteem</td>
<td>1178.77</td>
<td>1, 81</td>
<td>1178.77</td>
<td>10.75</td>
<td>.002</td>
<td>11.7</td>
</tr>
<tr>
<td>Global Self-Esteem</td>
<td>1664.35</td>
<td>1, 81</td>
<td>1064.35</td>
<td>25.56</td>
<td>.000</td>
<td>24.0</td>
</tr>
<tr>
<td>Appearance Evaluation</td>
<td>253.75</td>
<td>1, 81</td>
<td>253.75</td>
<td>9.48</td>
<td>.003</td>
<td>10.5</td>
</tr>
<tr>
<td>Appearance Orientation</td>
<td>1552.01</td>
<td>1, 81</td>
<td>1512.01</td>
<td>24.62</td>
<td>.000</td>
<td>23.3</td>
</tr>
</tbody>
</table>

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 13
Univariate Analyses of Variance for Hypotheses 4, 5, & 5

Hypothesis 7: Individuals with high appearance schematicity who are exposed to attractive images of similar others will show the greatest distress on mood and body/appearance satisfaction.

To test hypothesis 7, the interactions between schematicity and similarity of stimuli (i.e., occupation) on the measures of mood and body/appearance satisfaction were examined using a two-way MANOVA for the main effects of schematicity and similarity. However, because H7 predicted a priori differences in interaction cell means, the data were further analyzed. Univariate analysis of variance indicated no significant interaction effects on the measures of positive mood $[F(1, 81) = .003, p < .955]$, negative mood $[F(1, 81) = .189, p < .665]$, anxiety $[F(1, 81) = .672, p < .415]$, and depression $[F(1, 81) = .003, p < .955]$. Therefore, the predicted interaction effects were not found.
= .371, \( p < .544 \), anger \( [F(1, 81) = 2.36, p < .128] \), body dissatisfaction \( [F(1, 81) = 1.28, p < .262] \) or overall appearance dissatisfaction \( [F(1, 81) = .75, p < .190] \). A priori tests using Scheffe comparisons were used to compare mean differences between groups.

There were no significant differences between interaction cell means for positive mood, negative mood, or for anxiety (See Table 14). For depression, subjects who were high in schematicity and exposed to similar stimuli scored higher in depression \( (M = 35.68) \) than subjects who were low in schematicity and exposed to dissimilar stimuli \( (M = 10.38) \). Subjects who were high in schematicity and exposed to dissimilar stimuli scored higher in depression \( (M = 31.17) \) than subjects who were low in schematicity and exposed to dissimilar stimuli \( (M = 10.38) \). For Anger, subjects who were high in schematicity and exposed to similar stimuli scored higher in anger \( (M = 31.32) \) than subjects who were low in schematicity and exposed to similar stimuli \( (M = 12.73) \).

Subjects who were high in schematicity and exposed to similar stimuli scored higher in anger \( (M = 31.22) \) than subjects who were low in schematicity and exposed to dissimilar stimuli \( (M = 9.75) \). For body dissatisfaction, subjects who were high in schematicity and exposed to dissimilar stimuli scored higher in body dissatisfaction \( (M = 63.94) \) than subjects who were low in schematicity and exposed to similar stimuli \( (M = 31.96) \).

Subjects who were high in schematicity and exposed to dissimilar stimuli scored higher in body dissatisfaction \( (M = 63.94) \) than subjects who were low in schematicity and exposed to dissimilar stimuli \( (M = 27.75) \). For overall appearance dissatisfaction, subjects who were high in schematicity and exposed to similar stimuli scored higher in overall appearance dissatisfaction \( (M = 45.58) \) than subjects who were low in schematicity and exposed to dissimilar stimuli \( (M = 21.50) \). Subjects who were high in
schematicity and exposed to dissimilar stimuli scored higher in overall appearance dissatisfaction ($M = 49.06$) than subjects who were low in schematicity and exposed to dissimilar stimuli ($M = 21.50$).

Overall, regardless of whether subjects had high or low schematicity, a priori comparisons between similarity groups (i.e., similar and dissimilar conditions) did not reach significance. However, some of the mean differences were quite close to statistical significance. It is possible that more statistical significances would have been obtained with a larger number of subjects. Overall, however, no support was found for hypothesis 7. Although there were no significant interactions, an inspection of the interaction means (Table 14) revealed that subjects in the high appearance schematicity/similar condition had higher scores on the measures of mood distress.
<table>
<thead>
<tr>
<th>Schemacity</th>
<th>Similar Condition</th>
<th>Dissimilar Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High (19)</td>
<td>Low (26)</td>
</tr>
<tr>
<td></td>
<td>High (19)</td>
<td>Low (24)</td>
</tr>
<tr>
<td>Positive Mood</td>
<td>10.88 (2.96)</td>
<td>9.46 (2.70)</td>
</tr>
<tr>
<td>Negative Mood</td>
<td>6.32 (3.07)</td>
<td>5.00 (1.85)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>55.42 (30.25)</td>
<td>43.73 (31.06)</td>
</tr>
<tr>
<td>Anger</td>
<td>31.321,2 (31.45)</td>
<td>12.731 (13.52)</td>
</tr>
<tr>
<td>Body Dissatisfaction</td>
<td>52.35 (29.40)</td>
<td>31.961 (26.23)</td>
</tr>
<tr>
<td>Overall Appearance</td>
<td>45.581 (25.19)</td>
<td>29.65 (24.46)</td>
</tr>
</tbody>
</table>

Note: Scores for positive and negative mood could range from 3 to 15; all other measures could range from 0 to 100. Higher numbers indicate greater distress on positive mood, negative mood, anxiety, depression, anger, body dissatisfaction and overall appearance dissatisfaction. Standard deviations are in parentheses. The same superscript in the row indicates significant mean differences for the interaction.

Table 14
Mean Responses by Experimental Conditions

Subjects with high schemacity in the similar other condition exhibited the highest distress scores on positive mood ($M = 16.88$), negative mood ($M = 6.32$), anxiety ($M = 55.42$), depression ($M = 35.68$), and anger ($M = 31.32$). However, their distress scores on body dissatisfaction ($M = 52.35$) and overall appearance dissatisfaction ($M = 45.58$) were lower than subjects with high schemacity in the dissimilar other condition.
Perhaps, subjects' mood rather than body/overall appearance satisfaction would have been more prone to changes due to situational variables (exposure to attractive similar and dissimilar others), and the visual analogue scales might have been more appropriate for distress on mood rather than on body and overall appearance satisfaction.

**Summary of Findings**

The first hypothesis was that individuals with high appearance schematicity would be more distressed than those with low appearance schematicity. The multivariate analysis of variance (MANOVA) detected a significant effect for appearance schematicity when all seven dependent variables of mood were analyzed simultaneously. The univariate analyses of variance revealed that each of the dependent variables contributed to the multivariate main effect. The results indicated that after exposure to attractive images of others, female subjects with high appearance schematicity were more distressed than those with low appearance schematicity. Thus, the first hypothesis was supported by the data.

The second hypothesis was that individuals would show greater mood distress after being exposed to attractive images of similar rather than dissimilar others. The multivariate analysis of variance detected no significant effects for similarity of the comparison target when all seven dependent variables of mood were analyzed simultaneously. In other words, there were no main effects for the similarity of stimulus others on the measures of mood. Contrary to what was predicted, the subjects did not differ in their level of mood distress after their exposure to stimulus images in two conditions: similar and dissimilar. Thus, the second hypothesis was not supported.
The third hypothesis was that individuals with high self-ideal appearance discrepancies would show poorer self-evaluation of attractiveness yet greater investment in their appearance than those with low self-ideal appearance discrepancies. The multivariate analysis of variance detected significant main effects for the self-ideal appearance discrepancies on the measures of Appearance Evaluation and Appearance Orientation simultaneously. As predicted, women with high appearance discrepancies evaluated themselves lower for the level of attractiveness and attributed more cognitive and behavioral importance to their appearance than those with low appearance discrepancies. The univariate analyses of variance revealed main effects for appearance discrepancies on each of the dependent variables. Thus the third hypothesis was supported.

The fourth hypothesis was that individuals with high appearance schematicity would show lower self-esteem scores than those with low appearance schematicity. It was expected that individuals with high appearance schematicity would feel a lack of self-esteem after their exposure to highly attractive others. The multivariate analysis of variance and univariate analyses of variance for the effect of appearance schematicity detected significant effects on the measures of both social and global self-esteem. Women with high appearance schematicity exhibited lower levels of global and social self-esteem than those with low appearance schematicity. The data supported this hypothesis.

The fifth hypothesis was that individuals who are high in appearance schematicity would have lower appearance evaluation scores than those who are low in appearance schematicity. Individuals who placed varying levels of cognitive importance on
appearance were expected to reveal differences in their appearance evaluation triggered by exposure to attractive images. The univariate analysis of variance detected significant effects for appearance schematicity on the measure of appearance evaluation. As predicted, women with high appearance schematicity evaluated themselves lower on the evaluation of attractiveness than those with low appearance schematicity. Thus, this hypothesis was also supported.

The sixth hypothesis was that individuals with high appearance schematicity would have higher appearance orientation scores than those with low appearance schematicity. The univariate analysis of variance detected significant effects for appearance schematicity on the measure of appearance orientation. Women with high appearance schematicity exhibited greater appearance orientation, i.e., cognitive and behavioral importance (investment) in their appearance than those with low appearance schematicity. Thus, this hypothesis was also supported by the data.

The seventh hypothesis was that individuals with high appearance schematicity who are exposed to attractive images of similar others would show the greatest distress on measures of mood and body/appearance satisfaction. This hypothesis was examined using a priori Scheffe comparisons among the interaction cell means. There was no significant effect for the multivariate interaction between appearance schematicity and similarity of the comparison target. Thus, this hypothesis was not supported.
CHAPTER 5

DISCUSSION

This chapter does the following: gives an overview of the study, explores findings, examines theoretical and practical implications of the study, discusses limitations of the study, and concludes with suggestions for future research.

Overview of the Study

The purpose of this research was to examine the relationship between individuals' appearance self-schemas (generalized knowledge based on past experiences) and their perceptions toward their bodies and self in general, after being exposed to attractive, similar and dissimilar stimuli. This research examined the primary question, "Would the cognitive importance people place on appearance affect their mood and self-evaluations after their exposure to attractive images of others?" Attractive images of others served as upward comparison targets, which were expected to have negative effects (i.e., mood and self-evaluations) on subjects. The extent to which individuals have self-schemas in the domain of appearance was expected to affect their discrepancies between actual and ideal self in that domain, and in turn affect their level of distress after their exposure to attractive images. This research also examined the extent to which similarity of the comparison target affected the level of mood distress after exposure to upward comparison targets. Individuals were expected to be distressed more when they were
exposed to similar rather than to dissimilar others.

By using female college students as volunteers, this research measured the extent to which women's appearance schema affects their level of mood distress, self-esteem, self-evaluation, and investment in appearance after their exposure to attractive images of others. This research also measured the extent to which similarity of attractive others affects women's mood distress. For the effect of similarity of comparison targets, subjects were assigned to either a similar or dissimilar other condition.

Volunteers were asked to participate in two data-gathering sessions. The first session included measures of appearance schematicity and appearance self-ideal discrepancies, and the second session was conducted to measure subjects' responses after their exposure to the stimuli of the study. Based on the scores for the Appearance Schematicity Inventory in the initial session, subjects were blocked into two groups—those who had high appearance schematicity (N = 38) and those who had low appearance schematicity (N = 50). After being randomly assigned to a group, subjects were exposed to attractive images of either similar or dissimilar others in the follow-up session. The same set of sixteen photos, taken from fashion magazines, was used as stimulus images. The models in the photos were labeled as college students or professional models for the similar and dissimilar conditions, respectively. The follow-up session included multiple measures for the level of mood distress, self-esteem, self-evaluation, and investment in appearance. The data were analyzed by between-subjects multivariate analyses of variance (MANOVAs) and univariate analyses of variance. Appearance schematicity, appearance actual-ideal self-discrepancies, and similarity of the comparison target were used as the independent variables for MANOVAs. The dependent variables were
measures of mood (i.e., positive mood, negative mood, anxiety, depression, anger), body and overall appearance satisfaction, self-esteem (social and global), appearance evaluation, and appearance orientation.

The results of this study revealed that female subjects with high appearance schematicity were more distressed than those with low appearance schematicity; the former group of women showed greater anxiety, depression, anger, and body dissatisfaction, and overall appearance dissatisfaction, and negative mood in general than the latter group of women. Subjects with high appearance schematicity indicated lower levels of social and global self-esteem as well as self-ratings of attractiveness, and considered appearance more important in their cognition and behavior than those with low appearance schematicity. Contrary to expectations, subjects’ mood distress was not affected by the similarity of the comparison target; level of mood distress did not differ according to whether they were exposed to attractive similar or dissimilar others. Subjects’ appearance evaluation and appearance orientation were associated with appearance discrepancies between the actual self and ideal self; those with high appearance discrepancies evaluated themselves lower for appearance and placed greater importance on their appearances than those with low appearance discrepancies.

Discussion of Findings

This section discusses the study’s findings relative to the seven hypotheses tested.

H1: Individuals with high appearance schematicity will be more distressed than those with low appearance schematicity.
This hypothesis was supported; thus, the extent to which female subjects possess appearance schematicity affected their level of distress on mood and body satisfaction when they were exposed to attractive images of others. Appearance served as a domain of comparisons, and high appearance schematic subjects exhibited more negative responses when exposed to upward comparison targets than low appearance schematic subjects. As an effect of exposure to upward comparison targets, women with high appearance schematicity are likely to be dissatisfied with themselves since they may feel inferior to comparison others. Findings suggested that subjects were disturbed by images bearing cultural standards if they placed high cognitive importance on appearance. It is also worth noting relationships between one's self-schema and the effects of social comparisons. Self-schematicity is an individual variable, which varies according to individuals, whereas social comparison is a social variable, which involves other individuals in social interactions.

The findings related to this hypothesis reveal that the effects of exposure to upward comparison targets vary depending on individual variables such as self-schemas. Although subjects were exposed to the same upward comparison targets, effects from social comparisons varied depending on whether they were self-schematic on the domain of evaluation. Since individuals cannot fully control their appearance and have little control over changing their positions relative to others, upward comparisons with others often result in negative responses, as shown in these findings.
H2: Individuals will show greater distress on mood and body/appearance satisfaction after being exposed to similar rather than dissimilar attractive images.

As explained earlier in chapter 4, this hypothesis was not supported. Though a definitive explanation for the outcome is difficult to determine, the researcher sees three possibilities for the lack of significance for the effect of similarity.

First, the manipulation of the stimulus photos may not have been as effective as was hoped or as indicated by the manipulation check. In order to obtain immediate responses after exposure to similar and dissimilar comparison others, the stimulus photos were prepared to suggest that models in the photos were the members of an in-group or of an out-group. In-group members were similar others, and out-group members were dissimilar others in terms of occupation. For the manipulation of this study, similar others were labeled as college students and dissimilar others were labeled as models from modeling agencies (see Cash et al., 1983). However, the same images taken from magazines were used in both conditions. After being scanned through a computer, the images were placed into the two groups. Although the models from the magazines were believed to be unknown, perhaps the subjects were not convinced that they were college students based on their poses or their clothes or the subjects may have discounted the student label because the photos do not look like students. In other words, the subjects may have assumed all the models were dissimilar others. If, instead, subjects perceived stimulus images as either peers or professional models exactly as they were assigned for
the manipulation, comparisons with those images might have been as effective as was expected.

In fact, according to the manipulation check, subjects who were exposed to stimulus photos of similar or dissimilar others perceived those images differently in accordance with the occupation of the models. Subjects exposed to college students perceived themselves as more similar to those images than did subjects exposed to professional models. Thus, the probability of the first possible explanation is questionable.

Second, individuals immune to media image impact might have experienced too little influence for them to feel different compared to in-group and out-group members. Individuals frequently encounter attractive images of professional models through various media. Therefore, individuals have many chances to compare themselves with those attractive images and to reflect those images in their evaluation of self. Since almost all the subjects had been exposed to those images in their daily lives, exposure to stimulus photos may not have been an unusual experience for them. Thus, individuals could not have avoided affective responses as the result of upward comparisons with dissimilar others. In fact, Heinberg and Thompson (1992) proposed the possibility that individuals identify media images as comparison targets. If subjects identified professional models as comparison targets in this research, there might have been no meaningful differences between those who were exposed to attractive images of similar or dissimilar others. The probability of the second possible explanation seems to be high.

Third, subjects may not have been able to dismiss affective responses after their exposure to upward comparison targets. According to Festinger (1954), social
comparisons occur among similar individuals, as they expect to be provided more accurate information than those who are very different from individuals who engage in comparisons. If that is true, subjects could have dismissed comparisons with dissimilar others cognitively; however, they may have had a hard time avoiding distress as an immediate response when comparing themselves to better off similar others. Although at first sight this sounds reasonable, there are some problems in accepting this explanation.

For example, if subjects who were exposed to dissimilar others dismissed them as comparison targets cognitively, they should have responded differently than those who were exposed to similar others for the cognitive measures such as self-esteem, appearance evaluation, and appearance orientation. However, no meaningful differences were found for these variables. Therefore, it may be difficult to accept the third explanation.

H3: Individuals with high actual-ideal appearance discrepancies will show poorer self-evaluation of attractiveness yet greater investment in their appearance than those with low self-ideal appearance discrepancies.

This hypothesis, which was supported by the data, was tested for the effect of females’ discrepancies between actual self and ideal self on the domain of appearance. As noted earlier, the two main findings were: subjects who had high appearance discrepancies appeared to evaluate their attractiveness lower after their exposure to attractive others than did those who had low appearance discrepancies; subjects who had high appearance discrepancies appeared to place greater importance on their appearances.
after their exposure to attractive others than did those who had low appearance discrepancies. The findings from Hypothesis 3 suggest that females with high discrepancies between actual and ideal selves on appearance were less satisfied with their appearances, and continue investing thoughts and behaviors toward their appearances to a greater extent than those with low discrepancies.

Findings from testing Hypothesis 3 support the effects of social comparison, self-schemas, and self-discrepancies on the development of body image suggested in the model in Chapter 2. According to the model, when the actual own appearance is close to the ideal own appearance (i.e., low self-discrepancies on appearance) one would be more satisfied with her own body in the process of developing a positive body image. On the other hand, when the actual own appearance is not close to the ideal own appearance (i.e., high self-discrepancies on appearance) one would be dissatisfied with her own body in forming a negative body image.

H4: Individuals with high appearance schematicity will have lower self-esteem scores than those with low appearance schematicity.

This hypothesis was also supported; thus, self-esteem of subjects with higher appearance schematicity was affected more by attractive images of others than the self-esteem of subjects with lower appearance schematicity. Presumably, for women who were not as schematic as others toward appearance, comparisons with attractive others were not salient features in their evaluations of self worth. For them, there are other domains more important than appearance; thus, their self-esteem may not depend on their
level of attractiveness. Although they might realize that their appearances are not comparable to highly attractive others, that does not seem to lower their self-esteem. On the other hand, women with high appearance schematicity, after comparisons with attractive images of others, had lower levels of self-esteem. These findings support the effects predicted in the model in Chapter 2: after exposure to attractive images of others, those with low self-discrepancies between the actual and ideal self on appearance would have higher self-esteem than those with high discrepancies between the actual and ideal self on appearance who would have lower self-esteem. Since self-schematicity and self-discrepancy were positively related, findings from hypothesis 4 appear to support the effects in the model.

Although not formally hypothesized, it was expected that there would be no main effects for similarity on the measures of both global and social self-esteem. Indeed, subjects' global self-esteem \( F(1, 84) = 0.08, p < .93 \) and social self-esteem \( F(1, 84) = 2.17, p < .14 \) were not affected by whether comparison others were similar or dissimilar to themselves in terms of occupation. According to Thornton and Moore (1993), self-esteem, especially global self-esteem, is an enduring and stable component of personality. Thus, the similarity of the comparison target might not have affected subjects' global self-esteem. Unlike global self-esteem, social self-esteem is known to vary according to social situations; however, subjects who were exposed to similar and dissimilar others did not vary their social self-esteem after exposure to upward comparison targets. Perhaps, the effect for similarity in making upward social comparisons was overridden by the individual variable, i.e., appearance schematicity.
H5: **individuals who are high in appearance schematicity will have lower appearance evaluation scores than those who are low in appearance schematicity.**

This hypothesis was also supported; thus, the more female subjects considered appearance as important in their cognition, the lower they evaluated their level of attractiveness. For female subjects who had high schematicity toward appearance, the high level of attractiveness of comparison others may have become their standard in evaluating their own level of attractiveness.

Although this was not formally hypothesized, no main effect was predicted for similarity on the measure of self-evaluation of appearance. Testing this by analysis of variance revealed that individuals did not show differences in their evaluations of appearance when using similar or dissimilar others as comparison targets \( F(1, 84) = .192, p < .66 \). Presumably, regardless of whether they are in-group or out-group members, female subjects with high appearance schematicity are more likely than those with low appearance schematicity to adopt the level of attractiveness of others to evaluate their own appearances. According to Richins (1991), even if individuals raise comparison standards for attractiveness due to exposure to attractive images of others, their own level of attractiveness is likely to be stable across situations as a part of their self-concept. If that is true, individuals’ evaluation of their appearances is more likely to be influenced by their trait variables than situational variables manipulated by a researcher. The results of this study, then, were consistent with those of Richins; the
extent to which individuals evaluated their appearances varied according to their level of schematicity toward appearance as a stable characteristic.

**H6**: Individuals with high appearance schematicity will have higher appearance orientation scores than those with low appearance schematicity.

This hypothesis was supported by the data. Subjects who had high appearance schematicity invested their cognition and behaviors in appearance to a greater degree than those who had low appearance schematicity after being exposed to attractive images of others. It appears that upward comparisons may trigger women’s appearance-related cognition and behaviors to a greater degree for those with high appearance schematicity than those with low appearance schematicity. Although not formally hypothesized, it was expected that women’s appearance orientation would not be affected by whether they were exposed to similar or dissimilar others. Indeed, there was no main effect for similarity on the measure of appearance orientation \(F(1, 84) = .012, p < .91\). Perhaps, then, the extent to which women invest their cognition and behaviors in their appearances may depend on whether they consider appearance an important domain of self-concept. Thus, women who place much importance on their appearances are more likely to be concerned about public presentation of their appearances and to try to manage their appearances in desirable ways.
H7: Individuals with high appearance schematicity who are exposed to attractive images of similar others will show the greatest distress on mood and body/appearance satisfaction.

This last hypothesis was not supported in this study. There were neither an interaction effect for appearance schematicity and similarity of the comparison target nor a priori differences in interaction cell means. Although mean differences did not reach statistical significance, interaction means indicated that subjects in high appearance schematicity and similar condition had somewhat higher scores on the measures of mood distress.

Overall, the effect for similarity of comparison others on the level of distress was not supported, possibly due to individuals' frequent exposure to dissimilar as well as similar others of attractive images. They may not have dismissed dissimilar others as their comparison targets or felt as distressed as they did with similar others.

Implications of the Study

In contemporary U.S. culture, women are expected to be thin and physically attractive, as they are often evaluated by their looks rather than their abilities, and media images constantly perpetuate those images as cultural standards of ideal female beauty. In this study, subjects were exposed to upward comparison targets with media images of those whom they might consider superior to them on the level of attractiveness. As a typical result of upward comparisons, women were distressed and evaluated themselves negatively relative to "better-off" others on the domain of appearance. What was unusual
in the findings of this research was that the impact of social comparisons was biased by individuals' cognitive emphasis on appearance. As found in testing hypotheses for the effect of appearance schematicity, women with high appearance schematicity revealed more negative moods, lower self-esteem, lower evaluation of their own attractiveness, and higher appearance orientation than those with low appearance schematicity. The impact of exposure to attractive others was also affected by discrepancies between the actual and ideal self on the domain of appearance. Women with high actual-ideal self-discrepancies exhibited more negative self-evaluations of attractiveness and greater investment in their appearances than those with low actual-ideal self-discrepancies.

It is believed that in everyday circumstances people have a chance to observe similarities and differences between others and the self on the dimension of evaluation. Whether it is through social interactions or the media, individuals are exposed to favorable and unfavorable comparisons everyday. In the context of social comparisons, the following implications arise from this study.

First, the impact of social comparisons can be distorted by the cognitive importance placed on the dimension of self-evaluation. Findings from this study suggest that the extent to which individuals are affected by the upward comparison target may vary depending on the cognitive generalization of the comparison dimension. For example, some may consider appearance an important dimension for their self-evaluation, whereas others may place cognitive emphasis on other dimensions. Focusing on other schematic domains rather than appearance was suggested as one of the coping strategies to overcome negative effects from social comparison, self-schemas, and self-discrepancies in the development of body image. Depending on how well the dimension
of evaluation is generalized and readily accessible in their information processing, individuals’ cognitive, emotional, and behavioral results of social comparisons would be biased.

Second, the impact of social comparisons can be biased by discrepancies between the actual self and ideal self. Findings from this study indicate that the impact of social comparisons differs according to the extent to which individuals have discrepancies between their actual and ideal self. It appears that individuals have actual-ideal self-discrepancies for the domain of their cognitive importance. For example, the study showed that the higher the appearance schematicity, the greater the actual-ideal self-discrepancies.

Third, women who place greater cognitive emphasis on appearance would be in greater danger of failing to protect themselves when they are exposed to highly attractive media images. This study’s findings support the notion that women who are highly conscious of their appearances are more negatively affected by attractive others whom they perceive to be superior to them than women who are not so conscious of their appearances. Since women are under higher pressure to attain cultural standards of ideal beauty than men, more women are likely to place cognitive importance on their appearances, which in turn makes them more vulnerable to negative evaluations of their appearances and self in general. This seems to explain why more women are suffering from negative body images and thus try to emulate ideal images in various ways, including extreme behaviors such as obsessive dieting or exercise, bulimia, anorexia, or cosmetic surgery. Women who place cognitive importance on appearance may develop negative body images by being repeatedly exposed to attractive images including those in
the media. Although women were the subjects of this study, it is worth speculating on how the results may be generalized to men as well.

Although attractiveness in the media sells products, findings suggest possible negative effects of portraying unrealistic images in the media. The majority of women do not have the physical appearances like those seen in many media images. Furthermore, media images are considered to generate negative body perceptions among many women. In order to appeal to many of the consumers who have large-sized bodies, marketers may wish to use more large-size models and varying levels of attractiveness for their advertisements. It is also necessary to educate women, especially young girls, concerning how unrealistic media images are. Many of them do not realize that media images are artificially manipulated by make-up or camera effects. Young girls and female adolescents need to learn from their parents how to embrace their own appearances before they develop negative body images. By embracing their own appearances, young women would be able to lower their personal standards for their own ideal appearance, which was suggested as one of the three coping strategies in preventing the development of a negative body image.

Although much remains to be done, this study provides valuable insight into assessing cognitive, emotional, and behavioral results of social comparisons in relation to individuals' cognitive variables such as self-schema and self-discrepancy. No other research has jointly examined individual (self-schema and self-discrepancy) and sociocultural (social comparison) factors within one study. This study provided possible linkages between appearance self-schema, appearance self-discrepancy, and body image. This study is especially valuable in adapting sociocognitive theories to body image.
research. The results of the study suggested that women with negative body images could be examined by the extent to which they have appearance self-schemas. According to the results of the study, young women in the college-age range, especially those who are schematic to appearance, seem to be vulnerable to negative emotions after their exposure to thin and attractive images of the cultural ideal. In the study by Stice and Shaw (1994), female college students who were exposed to photos of thin-ideal models experienced greater depression, unhappiness, shame, guilt, stress, and body dissatisfaction than those who were exposed to photos of average-weight models or photos without models. Thus, the effects of exposure to the thin-ideal images were similar in both studies. Although the extent to which they feel negative emotions tend to vary according to the extent to which they have appearance self-schemas and self-discrepancies, media images may be negative influences on young women's body images and self-esteem as their greatest interest in beauty and fashion. The results of this study support the model suggested in Chapter 2.

Limitation of the Study

The main limitation of this study was that subjects were not able to choose their own comparison others. It is known that individuals may choose a downward comparison target if they seek self-enhancement, whereas if they want to improve themselves or identify with an upward target for the specific dimension of comparison, they are likely to choose an upward target. In this study, however, subjects could not control their standing on the dimension of comparison, i.e., appearance, nor whether the comparison target was upward or downward. A more realistic approach might be to
examine how individuals' appearance schematicity affects their own selection of comparison targets for the impact of social comparison on the dimension of appearance.

Concerning instruments, there was no perfect way to measure individuals' appearance schematicity. Although it is a reliable instrument (.71) (Cash, 1990), the Appearance Schematicity Inventory does not prevent subjects from seeking approval or making other errors while completing questionnaires. It would be more accurate to measure individuals' schematicity by reaction times for appearance-related words or by observing brain activities for those words. At present, there are no such measures available; thus, this research used a conventional measure for appearance schematicity.

The sample size for this study was also indicated as a limitation; the larger size may have generated more statistical significances, especially for a priori comparisons. Two by two between subjects' design limited the number of subjects for each cell with a greater error rate than within or mixed subjects' design.

Suggestions for Future Research

After reviewing the design of this study, the Human Subjects Review Committee raised a question as to whether there would be any ethnic differences in the ideal image of female beauty. The committee even suggested using African American models in addition to Caucasian models for the stimulus photos. It is believed that there are different racial and ethnic standards for the ideal of female beauty; however, the researcher did not intend to explore individual differences in self-evaluations and body images based on their cultural backgrounds. Furthermore, the majority of ideal female images presented in the media are Caucasians. The research was aimed at examining
individual differences based on the cognitive importance they place on appearance. Since the subjects were volunteers enrolled at the Ohio State University, a mid-western university where the majority of students are Caucasians, Caucasian models meeting mainstream cultural standards of ideal female beauty were used for the stimulus photos. However, future research could certainly address individual differences accounted for by cultural and racial/ethnic backgrounds.

Regarding subjects, this research focused only on women at the college level. This group of subjects was chosen because, whether they like it or not, they face strong social pressure to be attractive. Furthermore, they represent a significant consumer group and are a primary target of advertising ideal female images. However, the pressure for women to be attractive seems to start at an early age; thus, using adolescent or even younger girls as subjects would be helpful in examining social pressure toward women within a broader age range. Also, a study comparing the responses of college women with those of college men for the evaluation of attractiveness, body image and self-esteem would be of interest as well. Based on gender differences on body image, men are expected to have lower appearance schematicity than women; however, it would be interesting to see to what extent men’s appearance schematicity affects their body and self perceptions compared to women.

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APPENDIX A - C

INSTRUMENT PACKET
FOR THE INITIAL SESSION
APPENDIX A
Demographic Questionnaire

Please provide the following information to help us understand you. The information you provide will be anonymous.


4. Ethnic background:
   - Caucasian ______
   - African ______
   - Asian or Pacific Islander ______
   - Hispanic ______
   - Other ______ (specify)

5. Your current height: ______ feet and ______ inches

6. Your current weight: ______ pounds

7. Your ideal weight: ______ pounds
APPENDIX B
Appearance Schemas Inventory

Please indicate your agreement with the following statements, using the following scale:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Mostly Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Mostly Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

1. What I look like is an important part of who I am. ______

2. What's wrong with my appearance is one of the first things that people will notice about me. ______

3. One's outward physical appearance is a sign of the character of the inner person. ______

4. If I could look just as I wish, my life would be much happier. ______

5. If people knew how I really look, they would like me less. ______

6. By controlling my appearance, I can control many of the social and emotional events in my life. ______

7. My appearance is responsible for much of what has happened to me in my life. ______

8. I should do whatever I can to always look my best. ______

9. Aging will make me less attractive. ______

10. To be feminine, a woman must be as pretty as possible. ______

11. The media's messages in our society make it impossible for me to satisfy with my appearance. ______

12. The only way I could ever like my looks would be to change what I look like. ______

13. Attractive people have it all. ______

14. Homely people have a hard time finding happiness. ______
APPENDIX C

Body-Image Ideals Questionnaire

Please think about your personal ideal (how you wish or prefer to be) body and evaluate how well your actual body resembles or matches this ideal for each of the following areas of your body. Then, rate discrepancy on a scale as follows: -1 (exactly as I am), +1 (almost as I am), +2 (fairly unlike me), and +3 (very unlike me). Also, indicate the importance of each attribute on a scale as follows: 0 (not important), 1 (somewhat important), 2 (moderately important), and 3 (very important).

<table>
<thead>
<tr>
<th>Area</th>
<th>Discrepancy</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. skin complexion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. hair texture/thickness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. facial features</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. muscle tone and definition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. body proportions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. chest size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. physical strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. physical coordination</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D
STIMULUS PHOTOS IN SIMILAR CONDITION
C: KATHY FROM ARIZONA STATE UNIVERSITY

D: JULIA FROM UNIVERSITY OF MISSOURI
E: JAMIE FROM UNIVERSITY OF ILLINOIS

F: SUSAN FROM UNIVERSITY OF CALIFORNIA
I: ELAINE FROM UNIVERSITY OF MISSOURI

J: RENE FROM MICHIGAN STATE UNIVERSITY
K: ELIZABETH FROM UNIVERSITY OF MARYLAND

L: CHRISTINE FROM UNIVERSITY OF ILLINOIS
M: JENNY FROM UNIVERSITY OF CALIFORNIA

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N: LISA FROM WASHINGTON STATE UNIVERSITY
O: JOANNA FROM UNIVERSITY OF KENTUCKY
APPENDIX E

STIMULUS PHOTOS IN DISSIMILAR CONDITION
B: AMBER FROM N.Y. MODELING AGENCY
E: JAMIE FROM ANDREW WELLS MODELING

F: SUSAN FROM HOLLYWOOD MODELS, INC.
M: JENNY FROM HOLLYWOOD MODELS, INC.
N: LISA FROM FORD MODELING AGENCY

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O: JOANNA FROM Z MODELS

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P: MICHELLE FROM ANDREW WELLS MODELING
APPENDIX F - M

INSTRUMENT PACKET
FOR THE FOLLOW-UP SESSION
APPENDIX F

Stimulus Photo Rating Questionnaire

You will be provided with images of others labeled as A to P for the questionnaire I and II.

1. The most appropriate SKIN COLOR of the Photo “A” would be _______.
   a. Rosey beige   b. Very pink   c. Peach   d. Pale beige, delicate pink cheeks

2. The most appropriate HAIR COLOR of the Photo “A” would be _______.
   a. Medium brown   b. Light brown   c. Auburn   d. Golden brown

3. The most appropriate SKIN COLOR of the Photo “B” would be _______.

4. The most appropriate SKIN COLOR of the Photo “C” would be _______.

5. The most appropriate EYE COLOR of the Photo “C” would be _______.

6. The most appropriate HAIR COLOR of the Photo “D” would be _______.

7. The most appropriate EYE COLOR of the Photo “E” would be _______.
   a. Light blue   b. Aqua   c. Green   d. Blue

8. The most appropriate EYE COLOR of the Photo “F” would be _______.
   a. Aqua   b. Light blue   c. Blue   d. Hazel

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9. The most appropriate SKIN COLOR of the Photo "F" would be _______.
   a. Pale beige   b. White, delicate pink tone   c. Rosy beige   d. Peach

10. The most appropriate HAIR COLOR of the Photo "F" would be _______.
    a. Yellow gray   b. White blond   c. blond   d. Strawberry blond

11. The most appropriate SKIN COLOR of the Photo "G" would be _______.

12. The most appropriate SKIN COLOR of the Photo "H" would be _______.
    a. Rosy beige   b. Very pink   c. Peach   d. Pale beige

13. The most appropriate HAIR COLOR of the Photo "I" would be _______.
    a. Auburn   b. Medium brown   c. Chestnut brown   d. Red brown

14. The most appropriate SKIN COLOR of the Photo "J" would be _______.

15. The most appropriate EYE COLOR of the Photo "K" would be _______.

16. The most appropriate HAIR COLOR of the Photo "L" would be _______.

II. Please respond to the following items after reviewing photos, M to P. Please rate each photo for each of the two items on a 10-point scale (anchored by ends ranging for absence of an attribute to having the attribute) by circling the most appropriate answer.

1. Photo M:
   formal wear  1 2 3 4 5 6 7 8 9 10 not at all formal wear
   fashionable wear  1 2 3 4 5 6 7 8 9 10 not at all fashionable wear
2. Photo N:

| formal wear | 1 2 3 4 5 6 7 8 9 10 | not at all formal wear |
| fashion able wear | 1 2 3 4 5 6 7 8 9 10 | not at all fashionable wear |

3. Photo O:

| formal wear | 1 2 3 4 5 6 7 8 9 10 | not at all formal wear |
| fashion able wear | 1 2 3 4 5 6 7 8 9 10 | not at all fashionable wear |

4. Photo P:

| formal wear | 1 2 3 4 5 6 7 8 9 10 | not at all formal wear |
| fashion able wear | 1 2 3 4 5 6 7 8 9 10 | not at all fashionable wear |
# APPENDIX G

**Joy and Distress Scales**

Please indicate the extent to which each of the following six words describes the way you feel at the present time. Record your answers by circling the appropriate number on the five-place scale following each word. If at the present moment the word describes the way you feel very slightly or not at all, you would circle 1; if it describes the way you feel to a moderate degree you would circle 3, and so forth.

Remember, you are requested to make your responses on the basis of the way you feel at this time.

<table>
<thead>
<tr>
<th>Word</th>
<th>1 very slightly or not at all</th>
<th>2 slightly</th>
<th>3 moderately</th>
<th>4 considerably</th>
<th>5 very strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discouraged</td>
<td></td>
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<td></td>
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<tr>
<td>Happy</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sad</td>
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</tr>
<tr>
<td>Delighted</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Downhearted</td>
<td></td>
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<td></td>
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<tr>
<td>Joyful</td>
<td></td>
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</tbody>
</table>
APPENDIX H

Visual Analogue Scales

This questionnaire is provided for you to rate how you feel on each of the following dimensions at this moment. Please mark your disturbance level for each item by placing a short vertical stroke (i.e., make a slash) on the 100 millimeter line. For example, NO Anxiety = I do not feel anxious; EXTREME Anxiety = I feel extreme anxious.

NO Anxiety

EXTREME Anxiety

NO Depression

EXTREME Depression

NO Anger

EXTREME Anger

NO Body Dissatisfaction

EXTREME Body Dissatisfaction

NO Overall

EXTREME Overall

NO Appearance

EXTREME Appearance

NO Dissatisfaction

EXTREME Dissatisfaction
APPENDIX I

Janis-Field Self-Esteem Scale

Please respond to the following questions according to the following scale, except where specified differently.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Often</td>
<td>Fairly Often</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>Never</td>
</tr>
</tbody>
</table>

1. How often do you have the feeling that there is nothing you can do well?

   1  2  3  4  5

2. When you talk in front of a class or group of people your own age, how afraid or worried do you usually feel?

   1  2  3  4  5
   Worried/ Afraid
   Worried/ Afraid
   Worried/ Afraid
   Rarely
   Never

*3. How often do you feel that you have handled yourself well at a social gathering?

   1  2  3  4  5

4. Do you ever think you are a worthless individual?

   1  2  3  4  5

*5. In general, how confident do you feel about your abilities?

   1  2  3  4  5
   Very
   Fairly
   Sometimes
   Rarely
   Never
   Confident
   Confident
   Confident
   Confident
   Confident

*6. How often do you feel that you are a successful person?

   1  2  3  4  5

7. How often do you worry about whether other people like to be with you?

   1  2  3  4  5
<table>
<thead>
<tr>
<th></th>
<th>Very Often</th>
<th>Fairly Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. How often do you feel self-conscious?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

*9. How often do you have the feeling that you do everything well?*
<table>
<thead>
<tr>
<th></th>
<th>Very Often</th>
<th>Fairly Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

*10. How confident do you feel that some day the people you know will look up to you and respect you?*
<table>
<thead>
<tr>
<th></th>
<th>Very Confident</th>
<th>Fairly Confident</th>
<th>Sometimes Confident</th>
<th>Rarely Confident</th>
<th>Never Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

*11. How confident do you feel that your success in your future job is assured?*
<table>
<thead>
<tr>
<th></th>
<th>Very Confident</th>
<th>Fairly Confident</th>
<th>Sometimes Confident</th>
<th>Rarely Confident</th>
<th>Never Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

12. How often are you troubled with shyness?
<table>
<thead>
<tr>
<th></th>
<th>Very Often</th>
<th>Fairly Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

13. How often do you feel that you dislike yourself?
<table>
<thead>
<tr>
<th></th>
<th>Very Often</th>
<th>Fairly Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

*14. When you talk in front of a class or group of people your own age, how pleased are you with your performance?*
<table>
<thead>
<tr>
<th></th>
<th>Very Pleased</th>
<th>Fairly Pleased</th>
<th>Sometimes</th>
<th>Rarely Pleased</th>
<th>Never Pleased</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

15. How much do you worry about how well you get along with others?
<table>
<thead>
<tr>
<th></th>
<th>Very Often</th>
<th>Fairly Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

180
1. How comfortable are you when starting a conversation with people you don't know well?

2. How sure of yourself do you feel when among strangers?

3. How often do you feel inferior to most of the people you know?

4. When you speak in a class discussion, how sure of yourself do you feel?

5. Do you ever feel so discouraged with yourself that you wonder whether anything is worthwhile?

* Answers keyed so that an affirmative response indicated high self-esteem.
## APPENDIX J
### Appearance Evaluation

Please indicate the extent to which each statement pertains to you personally using the following scales. Circle the appropriate number.

<table>
<thead>
<tr>
<th></th>
<th>1 Definitely Disagree</th>
<th>2 Mostly Disagree</th>
<th>3 Neither Agree nor Disagree</th>
<th>4 Mostly Agree</th>
<th>5 Definitely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2</td>
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<td>5</td>
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</tr>
</tbody>
</table>

1. My body is sexually appealing.
   1  2  3  4  5

2. I like my looks just the way they are.
   1  2  3  4  5

3. Most people would consider me good-looking.
   1  2  3  4  5

4. I like the way I look without my clothes.
   1  2  3  4  5

5. I like the way my clothes fit me.
   1  2  3  4  5

6. I dislike my physique.
   1  2  3  4  5

7. I am physically unattractive.
   1  2  3  4  5
APPENDIX K
Self-Esteem Scale

Circle the answer that best describes you using the following scales:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neither Disagree nor Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. I feel that I'm a person of worth, at least on an equal plane with others.

2. I feel that I have a number of good qualities.

3. All in all, I am inclined to feel that I am a failure.

4. I am able to do things as well as most other people.

5. I feel I do not have much to be proud of.

6. I take a positive attitude toward myself.

7. On the whole, I am satisfied with myself.

8. I wish I could have more respect for myself.

9. I certainly feel useless at times.

10. At times I think I am no good at all.
APPENDIX L

Appearance Orientation

Please indicate the extent to which each statement pertains to you personally using the following scales. Circle the appropriate number.

<table>
<thead>
<tr>
<th></th>
<th>Definitely Disagree</th>
<th>Mostly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Mostly Agree</th>
<th>Definitely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td></td>
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<tr>
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</table>

2. I am careful to buy clothes that will make me look my best.
3. I check my appearance in a mirror whenever I can.
4. Before going out, I usually spend a lot of time getting ready.
5. It is important that I always look good.
6. I use very few grooming products.
7. I am self-conscious if my grooming isn’t right.
8. I usually wear whatever is handy without caring how it looks.
9. I don’t care what people think about my appearance.
10. I take special care with my hair grooming.
11. I never think about my appearance.
12. I am always trying to improve my physical appearance.
### APPENDIX M

**Manipulation Checks**

Overall, do you perceive stimulus photos similar to yourself in terms of occupation?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>Similar</td>
<td>Very</td>
<td>Similar</td>
<td></td>
<td></td>
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</table>

Overall, do you perceive stimulus photos similar to yourself in terms of attractiveness?

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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>Similar</td>
<td>Very</td>
<td>Similar</td>
<td></td>
<td></td>
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</tbody>
</table>
APPENDIX N - O

SOLICITATION OF SUBJECTS
Female College Students Needed
For Dissertation Research

I am looking for volunteers for my dissertation research concerning the way women feel about their bodies and evaluate their appearances in social situations.

There will be two sessions held over an interval of two weeks. The first session takes about 15 to 20 minutes and the second session takes about 20 to 25 minutes.

You will be eligible for cash prize drawings (total $150) by simply participating in this research. The first four drawing winners from the first session will receive $10, the second three drawing winners from the second session will receive $20, and the last one grand prize winner will receive $50. Therefore, you can have twice the chances if you participate in both sessions. Even if you withdraw from the study after the first session, you are still eligible for a cash prize.

There is no risk in this study; Mostly you will be asked to fill out questionnaires. The study will be conducted in a room in Campbell Hall; I will notify you the exact time and place when you contact me for your participation.

If you are interested in, please call Jaehee Jung 421-0967.
APPENDIX O

Oral Solicitation

Hello everyone,

I am a doctoral student majoring in textiles and clothing. For my doctoral dissertation I am conducting a study designed to understand women's body image and appearance evaluation. In fact, I am recruiting only female subjects for my study.

There will be two sessions: the initial session, which you will come and complete a questionnaire and the follow-up experiment session, which you will look at stimulus materials and then complete various questionnaires. It should take you about 15 to 20 minutes for the initial session and 20 to 25 minutes for the follow-up session.

Your responses will be confidential and your name is not included with the questionnaire packet I provide.

Participation in this study is completely voluntary. However, you can be eligible to draw cash prizes if you participate in this study.

If you are interested, please sign your name and list your phone number so that I can reach you to inform you of exact times and places for the research sessions. If you cannot decide whether you want to participate or not, or if you change your mind not to participate, please call me at 421-0967. I hope all of you participate.

Thank you for your attention.
APPENDIX P

SCRIPT FOR PHONE CALLS
FROM POTENTIAL PARTICIPANTS
HELLO, JAEBEE JUNG SPEAKING.

Hello, my name is ........... Are you recruiting subjects for your research?

YES, CERTAINLY.
I AM CONDUCTING A RESEARCH PROJECT DESIGNED TO UNDERSTAND WOMEN'S SELF-EVALUATIONS AND PERCEPTIONS OF OTHERS IN SOCIAL SITUATIONS. THERE WILL BE TWO SESSIONS: THE INITIAL SESSION, FOR WHICH YOU WILL COME AND COMPLETE A QUESTIONNAIRE AND THE FOLLOW-UP SESSION, FOR WHICH YOU LOOK AT STIMULUS MATERIALS AND THEN COMPLETE SOME MORE QUESTIONNAIRES. AS I ADVERTISED, IT SHOULD TAKE YOU ABOUT 15 TO 20 MINUTES FOR THE INITIAL SESSION AND 20 TO 25 MINUTES FOR THE FOLLOW-UP SESSION. YOUR RESPONSE WILL BE CONFIDENTIAL. AS YOU MAY KNOW BY SEEING MY ADS, YOU WILL BE ELIGIBLE FOR CASH PRIZE DRAWINGS BY SIMPLY PARTICIPATING IN THIS STUDY. DO YOU WANT ME TO EXPLAIN ABOUT THAT?

IF YES: A TOTAL OF $150 WILL BE USED FOR EIGHT DRAWINGS. THE FIRST FOUR DRAWING WINNERS FROM THE FIRST SESSION WILL RECEIVE $10, THE SECOND THREE DRAWING WINNERS FROM THE SECOND SESSION WILL RECEIVE $20, AND THE LAST GRAND PRIZE WINNER WILL RECEIVE $50. THEREFORE, YOU CAN HAVE TWICE AS MANY CHANCES IF YOU PARTICIPATE IN BOTH SESSIONS. EVEN IF YOU WITHDRAW FROM THE STUDY AFTER THE FIRST SESSION, YOU ARE STILL ELIGIBLE FOR A CASH PRIZE DRAWING. SO, ARE YOU INTERESTED IN BEING A PARTICIPANT FOR THIS STUDY?

IF NO: O.K., THEN, WOULD YOU BE INTERESTED IN BEING A PARTICIPANT FOR THIS STUDY?

IF YES: THANKS SO MUCH. COULD YOU COME TO CAMPBELL HALL ROOM ____ ON JUNE ____ FOR THE FIRST SESSION? IF THIS DATE IS NOT GOOD FOR YOU, ............ (arrange times for the first session). YOU WILL BE INFORMED OF THE DATE FOR THE SECOND SESSION WHEN YOU COME FOR THE FIRST SESSION. I WANT TO LET YOU KNOW THAT YOU CAN WITHDRAW FROM THE STUDY AT ANY TIME WITHOUT PENALTY. SO, IF YOU FIND THAT YOU WOULD RATHER NOT CONTINUE YOUR PARTICIPATION, I'D APPRECIATE IT IF YOU WOULD AT LEAST INFORM ME.

IF NO: THAT'S O.K. I UNDERSTAND. PLEASE CALL ME BACK IF YOU CHANGE YOUR MIND. THANKS FOR YOUR CALL.

190
Subject Information and Informed Consent

Project Title: Body Image as a Function of Social Comparison, Self-Schema, and Self-Discrepancy

Principle Investigator: Sharon J. Lennon, Professor
Department of Consumer and Textile Sciences

Jaehee Jang, Doctoral Candidate
Department of Consumer and Textile Sciences

I am being asked to participate in a research study designed to better understand women's self-evaluations and perceptions of others in social situations. I will be asked to participate in two sessions: participation in the first session will consist of completing a questionnaire; participation in the second session will consist of evaluating photo images presented to me and completing various questionnaires. The first session should take me about 15 to 20 minutes and the second session should take me about 20 to 25 minutes.

After the instructions are read, I am free to ask any questions I may have. I acknowledge that there are no right or wrong answers to the questionnaire items and I just give the answer that is most accurate for me. I understand that my responses are confidential, so I will be completely honest. I will not put my name or any other identifier on the attached questionnaire. If at any time I find that I would rather not participate, I am free to discontinue this study. Also, if I find that I would rather not participate in the second session even if I participated in the first session, I am free to inform the experimenter.

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily agree to participate in the activity described above.

Name (print) ___________________ Signature ___________________

Date ____________
APPENDIX R - S
SCRIPT FOR THE EXPERIMENT
HELLO EVERYONE.

THANK YOU FOR COMING HERE TO PARTICIPATE IN MY RESEARCH STUDY. FIRST, LET ME GIVE YOU A CONSENT FORM AS A WAY TO INDICATE THAT YOU ARE VOLUNTEERING FOR THIS STUDY. PLEASE READ AND SIGN YOUR NAME WITH THE DATE. IF YOU HAVE ANY QUESTIONS, PLEASE DO NOT HESITATE TO ASK. (A few minutes later) ARE YOU ALL DONE? C.K. THEN, LET ME HAVE YOUR CONSENT FORM BACK (collect the consent form from subjects). NOW, LET ME GIVE YOU A QUESTIONNAIRE PACKET (distribute questionnaire packets). PLEASE READ INSTRUCTIONS CAREFULLY AND DO NOT LEAVE ANY ITEMS UNANSWERED.

ARE THERE ANY QUESTIONS? REMEMBER IF AT ANY TIME YOU FEEL UNCOMFORTABLE YOU CAN WITHDRAW FROM THIS STUDY WITHOUT PENALTY. IF AT ANY TIME YOU HAVE ANY QUESTIONS, PLEASE RISE YOUR HAND. WHEN YOU ARE FINISHED, YOU CAN TURN IN YOUR QUESTIONNAIRE AND SIGN YOUR NAME ON THE RAFFLE TICKET FOR CASH PRIZE DRAWINGS. YOU CAN ALSO SIGN YOUR NAME IN ONE OF THE TIMES PROVIDED FOR THE SECOND SESSION BEFORE YOU LEAVE.

PLEASE BEGIN.
HELLO EVERYONE.

THANKS FOR COMING HERE TO PARTICIPATE IN THE SECOND SESSION OF MY STUDY. LET ME GIVE YOU A BOOKLET OF STIMULUS PHOTOS AND A QUESTIONNAIRE PACKET. (Distribute them) PLEASE LOOK AT PHOTOS CAREFULLY AND ANSWER THE RELATED QUESTIONS. REMEMBER IF AT ANY TIME YOU FEEL UNCOMFORTABLE YOU CAN WITHDRAW FROM THIS STUDY WITHOUT PENALTY. ALSO, IF YOU HAVE ANY QUESTIONS, DO NOT HESITATE TO ASK. WHEN YOU ARE DONE WITH EVERYTHING, DON'T FORGET TO SIGN YOUR NAME ON THE RAFFLE TICKET FOR THE CASH PRIZE DRAWINGS. PLEASE BEGIN.

(Thank subjects individually when they leave the room)
APPENDIX T
RAFFLE TICKET
REGISTRATION FORM

FOR CASH PRIZES OF $10, $20, & $50

Name ________________________________

Phone Number _________________________

Tear off top half and put in prize drawing box.

Names will be drawn at 2:00 p.m., Wednesday, July 29. The first four, the second three and the third one drawing winners will receive $10, $20, and $50 cash prizes. I will call you if you win, and the name of the winner will be posted on the door (247 Campbell Hall). You can call 292-3089 or 421-0967 after 2:00 Wednesday, July 29 to find out names of the winners.

Good Luck!

Thanks for your participation.

Jaehoo Jung
NOW THAT THE EXPERIMENT IS OVER I WOULD LIKE TO EXPLAIN TO YOU THE TRUE PURPOSE OF THIS STUDY. THE PURPOSE OF THIS STUDY WAS TO EXAMINE HOW WOMEN FEEL ABOUT THEIR BODIES AND EVALUATE THEIR APPEARANCES AFTER BEING EXPOSED TO STIMULUS PHOTOS OF SIMILAR AND DISSIMILAR OTHERS. SIMILAR OTHERS FOR YOU WOULD BE COLLEGE STUDENTS AND DISSIMILAR OTHERS FOR YOU WOULD BE PROFESSIONAL MODELS. HOWEVER, I USED EXACTLY THE SAME STIMULUS IMAGES FOR BOTH CONDITIONS. THEREFORE, EVEN IF YOU THOUGHT YOU WERE LOOKING AT IMAGES OF COLLEGE STUDENTS, YOU WERE ACTUALLY LOOKING AT IMAGES OF PROFESSIONAL MODELS.

THUS, I WOULD LIKE TO INFORM YOU THAT SOME OF YOU HAVE BEEN MISLED TO BELIEVE THAT THE STIMULUS PHOTOS WERE THOSE OF COLLEGE STUDENTS. HOWEVER, ALL THE PHOTOS USED IN THIS STUDY WERE THOSE OF PROFESSIONAL MODELS SELECTED FROM FASHION MAGAZINES.

IF ANY OF YOU ARE INTERESTED IN FINDING OUT RESULTS OF MY STUDY, YOU CAN CONTACT ME AT 292-3089 OR 421-0967 AFTER SUMMER QUARTER.

THANK YOU SO MUCH FOR YOUR PARTICIPATION!
APPENDIX V
HUMAN SUBJECTS LETTER OF APPROVAL

200
Research Involving Human Subjects

ACTION OF THE INSTITUTIONAL REVIEW BOARD

With regard to the employment of human subjects in the proposed research protocol:

AB0049  BODY IMAGE AS A FUNCTION OF SOCIAL COMPARISON, SELF-SCHEMA, AND SELF-DISCREPANCY; Raymond J. Lessner, Phoenix Ariz. Consumer and Textile Sciences

THE BEHAVIORAL AND SOCIAL SCIENCES HUMAN SUBJECTS IRB HAS TAKEN THE FOLLOWING ACTION:

- APPROVED
- DISAPPROVED
- X APPROVED WITH CONDITIONS
- WAIVER OF WRITTEN CONSENT GRANTED

* Conditions stated by the IRB have been met by the investigator and, therefore, the protocol is APPROVED.

It is the responsibility of the principal investigator to retain a copy of each signed consent form for at least three (3) years beyond the termination of the subject's participation in the proposed activity. Should the principal investigator leave the University, signed consent forms are to be transferred to the Human Subjects IRB for the required retention period. This application has been approved for the period of one year. You are reminded that you must promptly report any problems to the IRB, and that no procedural changes may be made without prior review and approval. You are also reminded that the identity of the research participants must be kept confidential.

Date: May 8, 1990
Signed: Patricia McComas

(Chairperson)