Effects of Fashion Ads on Young Adults' Physical Self-Assessments

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EFFECTS OF FASHION ADS ON YOUNG ADULTS’ PHYSICAL SELF-ASSESSMENTS

by

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ABSTRACT
EFFECTS OF FASHION ADS ON YOUNG ADULTS’ PHYSICAL SELF-ASSESSMENTS

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Marquette University, 2012

This study examined the effects of fashion advertisements on young adults’ physical self-assessments, including mood, leadership role selection, body esteem, and attributional style. Two hundred seventy seven participants, including 110 men and 167 women completed a series of questionnaires. Results indicated that both men and women who were exposed to images of same-sex physical exemplars responded with an externalizing attributional style after imagining a hypothetical “bad” blind date. Men’s reported mood was consistent with their cognitive judgment, indicative of having engaged in the self-serving bias, while women’s mood was discordant with their externalization of the event. Gender differences and similarities are discussed.
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Men and women occupy the same social worlds but they often perceive and experience the same social situations and contexts differently (Yoder & Kahn, 2003). That is to say that while researchers have found that there are many more similarities between men and women than there are differences (Hyde, 2005), there are certain contexts which tend to elicit disparate experiences for women and men. Such discrepancies have been found to appear in situations that are of a highly gendered context (Yoder & Kahn, 2003). In this regard, it has been suggested that one’s gendered world becomes most apparent when considering how people perceive and experience their physical selves (Franzoi, Vasquez, Sparapani, Frost, Martin, & Aebly, in press). Gender differences tend to be found in contexts of the physical realm because such features define masculinity and femininity (e.g., Davis, 1990; Signorielli & Bacue, 1999) and the way one’s body is supposed to look. In the area of body image, men and women seem to experience very different worlds, presumably because of the degree of importance that society places on physical perfection and the greater level of cultural scrutiny of the female body (Franzoi, 1995). Like many cultures, American culture emphasizes women’s physical attractiveness, or the feminine body-as-object (Franzoi, 1995; Franzoi & Chang, 2000). Women learn from a young age that their physical attractiveness is important; they are taught that their beauty will be closely scrutinized and will often determine how they are accepted, valued, and treated by others (James, 2000). The importance of physical appearance has been found to be especially true in terms of heterosexual relationships (Townsend & Wasserman, 1997).

Knowing the value of physical attractiveness and how important it is in regards to social status can lead to feelings of inadequacy when one does not match the proposed
ideal (Thornton & Maurice, 1999). This negative effect is consistent with social comparison theory, which states that people are motivated to look to others for self-evaluation (Festinger, 1954). Upward social comparison occurs when an individual compares himself/herself to others who are “better” than he/she is in terms of traits, characteristics, or skills. Research indicates that women are more likely to engage in upward social comparison than men when evaluating their own body aspects related to physical attractiveness, or the body-as-object (Franzoi & Klaiber, 2007; Franzoi et al., in press).

Given the manner in which the female body is objectified by society, many social scientists assert that this objectification leads women to perceive their bodies from an outsider's perspective, that is, as an object to be evaluated (e.g., Franzoi, 1995; Fredrickson & Roberts, 1997). For example, Fredrickson and Roberts’ (1997) objectification theory argues that girls and women are acculturated to internalize others' perspectives as a primary means of viewing their physical selves. This perspective on the self causes women to be highly aware of and concerned about their physical appearance, leading to habitual body monitoring and increased opportunities to experience negative affect, including feelings of shame and anxiety (Fredrickson & Roberts, 1997).

Nowhere is this gendered distinction of the body as a beauty object more apparent than in the popular media (Groesz, Levine, & Murnen, 2002). Magazines and television constantly portray images of physical perfection and glorify individuals who fit this physical ideal (Wolf, 1991). These images depict the way viewers – particularly women - should aspire to look, even though these attractiveness standards are difficult – if not impossible - to attain (Dittmar, 2005; Posavac & Posovac, 1998). Research has
consistently shown that exposure to images of the female physical ideal negatively influences women’s self-evaluations (e.g., Brown, Novick, Lord, & Richards, 1992; Henderson-King, Henderson-King, & Hoffman, 2001). Numerous studies have shown that women’s body esteem, particularly weight-related body esteem, is negatively impacted by repeated exposure to the impractical and unrealistic standards depicted in fashion advertisements (Bissell & Zhou, 2004; Tiggemann & McGill, 2004). For instance, Richins (1991) demonstrated that participants exposed to advertisements containing highly attractive models were less satisfied with their own level of attractiveness after viewing the images.

While previous research suggests that women are motivated to assess their bodies critically, these same studies suggest that men have the tendency to enhance their feelings of self-worth (Franzoi et al., in press). When noting this gender tendency, Franzoi (1995) suggested that men often appear to engage in the self-serving bias, which is the tendency to perceive oneself in the best possible light (Miller & Ross, 1975). While some research suggests that men are more likely than women to engage in the self-serving bias regarding general life events (Maass & Volpato, 1989; Sedikides, Campbell, Reeder, & Elliot, 1998), Powell, Matacin, and Stuart (2001) and Franzoi, Kessenich, and Sugrue (1989) contend that men have the cultural freedom to engage in the self-serving bias regarding their physical selves that is largely unavailable to women. For example, in one study Franzoi et al., (1989) examined daily body awareness tendencies of young adults using experiential sampling and found that men were more likely to focus on their bodies when their body evaluations were positive as opposed to negative, while women’s situational body awareness was not influenced by whether their current body attitude was
positive or negative. In explaining their findings, the researchers stated that this gender difference in attention to the physical self related to affect coincides with the emphasis that society places on the physical appearance of women, or the female body-as-object. In other words, women are habitually aware of their bodies as objects of public scrutiny, regardless of whether the evaluation is good or bad. Men, on the other hand, are not nearly so inundated with incessant images or messages pertaining to high physical attractiveness standards, giving them the luxury of focusing on their bodies only when the evaluation is positive, which helps them to feel good about themselves (Franzoi et al., 1989). So, even when they might otherwise feel threatened by “better” comparison targets, men are better equipped by their social environment to protect their self-worth and maintain the positive beliefs they have about themselves by engaging in this self-serving bias, which is something that women are less likely to do given their social circumstances. Men’s and women’s often divergent responses in these social comparison situations are demonstrative of the differences in their social worlds regarding the physical self.

Given this gendered context for women’s and men’s experiences of their physical selves, the main goal of the current study was to further examine this gender discrepancy regarding the self-serving bias by determining the impact of viewing fashion advertisements on body esteem, as well as individuals’ responses in a social domain that emphasizes physical appearance, namely a blind date. A secondary goal was to examine whether exposure to fashion advertisements impacts the choices men and women make in a social context not related to physical appearance, namely a leader-follower group task. In essence, this secondary goal attempted to further explore Fredrickson’s and Roberts’
assertion that objectification of the female body negatively affects women’s performance in various social domains (Calogero, 2004; Quinn, Kallen, Twenge, & Fredrickson, 2006).

**Do All Female-Focused Advertisements Negatively Impact Women?**

Previous research has shown that exposing individuals to images of the physical ideal has been an effective method for cognitively priming attractiveness and beauty standards. For example, Daniels (2009) exposed adolescent girls and college women to photos from one of four categories: sexualized athletes, non-sexualized (performance) athletes, sexualized models, or non-sexualized models in order to investigate the way in which viewing these images influenced participants’ self-descriptions. Of particular interest was the extent to which exposure to sexualized images of women primed a body-as-object mentality. Results indicated that girls and women who viewed images of sexualized models and sexualized athletes made significantly more beauty-related statements about themselves compared to participants in the two non-sexualized categories. These findings suggest that exposing women to images emphasizing beauty primes a feminine body-as-object mentality. Evidence of upward social comparison effects were also found: girls and women in the two sexualized conditions and the performance athlete condition made more negative beauty statements about themselves, while participants in the non-sexualized models condition made more positive beauty statements about themselves. Second, girls and women who saw pictures of performance athletes made significantly more physicality statements about their own bodies compared to participants in the other three conditions (Daniels, 2009). In other words, these latter studies suggest that viewing images of performance athletes prompts less self-
objectification. Also, viewing images depicting performance and physicality ideals do not cognitively prime a body-as-object mentality, but instead activate a body-as-process mentality, which emphasizes recognition of and appreciation for body aspects related to physical functioning. Franzoi and colleagues have argued that viewing the body as a process rather than an object has historically characterized gender socialization among men in our culture and plays a significant role in explaining the healthier and more positive body images of men compared to women (Franzoi, 1995; Franzoi & Chang, 2000).

Daniels’ (2009) and other studies (e.g., Grabe, Ward, & Hyde, 2008; Groesz et al., 2002) suggest that the priming of physical attractiveness standards using same-sex physical exemplars negatively impacts women’s physical self-assessments. What happens when men are directly confronted with such ideals for their sex? Are their body attitudes threatened in a manner similar to women? Numerous social scientists contend that men are less likely to be regularly confronted with same-sex exemplars of extreme physical attractiveness, which leads them to be more likely than women to have positive body esteem (Franzoi, 1995; Murnen, Smolak, Mills, & Good, 2003). Prior research has manipulated men’s and women’s exposure to attractiveness standards associated with their sex to determine how it affects responses to questions related to the physical self. For instance, Grogan, Williams, and Conner (1996) found that body esteem scores decreased significantly in both men and women after viewing images of same-sex models, while body esteem scores of men and women in the control group (who viewed images of landscapes) showed no change. These results demonstrate evidence of social comparison as well as the influence these types of images can have on an individual’s
satisfaction with the way they look. These findings also conflict with the idea that men are not affected by body-related images and suggest that men may be engaging in upward social comparison (Grogan et al., 1996). Hausenblas, Janelle, Gardner, and Hagan (2003) also found that showing men images of the ideal male physique led to an increase in their reported levels of body dissatisfaction. Other studies, however, have not found media images to be detrimental to the way men feel about their bodies. One such study found that for men, comparing one’s self to media images was not associated with body dissatisfaction (van den Berg, Paxton, Keery, Wall, Guo, & Neumark-Sztainer, 2007). Similarly, Johnson, McCreary, and Mills (2007) found that viewing media-portrayed objectified male images did not have a significant impact on men’s body esteem.

To examine this issue more closely, the current study aimed to determine the ways that exposure to images of the physical ideal would influence the ways both men and women feel about their bodies. As already discussed, research in the area of body image has found that fashion advertisements often affect men and women differently in terms of their judgments of their bodies and their own physical attractiveness (e.g., Franzoi et al., 1989; Grogan et al., 1996). While findings tend to be unequivocal for men, they tend to be fairly consistent for women (e.g., Bissell & Zhou, 2004; Hausenblas et al., 2003; Richins, 1991; Tiggemann & McGill, 2004; van den Berg et al., 2007). In the current study, college student volunteers were either exposed or not exposed to cultural attractiveness standards. Images of the male physical ideal were expected to prime male physical attractiveness standards and to have an impact on aspects of male body esteem targeted in the ads, while images of the female physical exemplars were expected to prime female physical attractiveness standards and impact aspects of female body esteem.
targeted in those ads. In other words, it was expected that viewing images of same-sex physical exemplars would negatively impact body esteem dimensions comprised of features indicative of physical attractiveness rather than characteristics associated with physical condition. Past research has identified three dimensions of body esteem for women and three dimensions of body esteem for men. Dimensions of female body esteem include sexual attractiveness (e.g., nose, lips, chest/breasts), weight concern (e.g., waist, thighs, hips, legs), and physical condition (e.g., physical stamina, reflexes, muscular strength). Male body esteem dimensions include physical attractiveness (e.g. nose, lips, chin), upper body strength (e.g. arms, chest, biceps), and physical condition (e.g. physical stamina, reflexes, energy level) (Franzoi & Shields, 1984).

In accordance with the findings of previous research (e.g., Bissell & Zhou, 2004; Richins, 1991; Tiggeman & McGill), the current study anticipated that women would be more negatively impacted by ads depicting same-sex physical exemplars than men who were exposed to physical exemplars for their sex because such ads are believed to be more detrimental for women due to their greater relevance to women’s self-concepts (Franzoi, 1995). Specifically, it was anticipated that, after exposure to images of same-sex physical exemplars, women would report lower body esteem than women in the control condition who were not exposed to the attractiveness primes on the body esteem dimensions of weight concern and sexual attractiveness, but not on the dimension of physical condition. This was expected because fashion advertisements tend to depict aspects of the female body that are associated with physical characteristics comprising these two dimensions. Similar hypotheses were made for men. It was expected that men who were exposed to images of physical exemplars for their sex would report lower body
esteem than men in the control condition who were not exposed to the attractiveness primes on the body esteem dimensions of physical attractiveness and upper body strength, but not on the dimension of physical condition. Again, this was anticipated because fashion ads tend to portray aspects of the male body that are associated with physical characteristics that comprise these two dimensions.

Additionally, it was expected that inducing such upward social comparison (through exposure to images exemplifying physical attractiveness standards of their gender, standards for which they are most likely discrepant) would likely lead women to be self-critical of their own bodies which would decrease their mood. Similar effects were not, however, expected in men, because matching attractiveness standards is not as salient or important for men as it is for women. Therefore, the mood of men, on the other hand, was not expected to decrease in the way that women’s mood would, because male attractiveness ideals are likely to be less central to men’s body image and overall self-concept (Franzoi, 1995).

Furthermore, in addition to the effects on men’s and women’s body esteem and mood, it is believed that gender differences regarding reactions to exposure to same-sex physical ideals may be impacting men and women in other social forums. Another purpose of this study was to explore how exposure to fashion advertisements not only influences the way men and women feel about their bodies, but the ways in which men’s and women’s physical self-assessments affect their judgments and decision making in contexts related to physical appearance as well as in contexts and situations that are not related to physical appearance.
Possible Effects of Beauty Ads on Dating Attributions

In addition to determining the effects of fashion ads on men’s and women’s mood and body esteem, another objective of the current study was to investigate possible gender differences in people’s responses to social events following exposure to physical exemplars for their sex. One social event explored whether effects of the gender discrepancy in the self-serving bias extend to the ways in which men and women explain an event in their lives that is related to physical appearance in a romantic dating situation. That is, the current study examined the attributions women and men made for a hypothetical blind date going badly. Of particular interest were the attributions men and women made regarding locus of causality and whether their attributions matched their reported mood.

People make attributions by using information to make inferences about the causes of behavior or events (Peterson & Seligman, 1984). In other words, an attribution is made when an event occurs and a person comes up with an explanation as to why the event took place, especially if the event that has occurred is negative and unexpected (Abramson, Seligman, & Teasdale, 1978). While people make many attributions for different events on a daily basis, attributional style has been defined as “a cognitive personality variable that reflects how individuals explain bad events” that they experience (Dykema, Bergbower, Doctora, & Peterson, 1996). It has been found that people tend to differ in their attributional style, which affects how they respond to uncontrollable and often unexpected life events (Abramson et al., 1978).

As previously stated, this study anticipated that one possible consequence of men and women experiencing different social worlds and this hypothesized gender difference
in the self-serving bias may be different styles of explaining negative events related to the physical self, in this case, a hypothetical blind date going badly. Attributional styles, or explanatory styles, include three dimensions: internality vs. externality, specificity vs. globality, and stability vs. instability. Respectively, these dimensions indicate the degree to which individuals accept or assign responsibility for the outcome (internality vs. externality), whether the cause of the outcome is relevant only to the specific situation at hand or if it can be generalized to other circumstances (specificity vs. globality), and whether or not this situation and its cause will be present again at some point in the future (stability vs. instability) (Dykema et al., 1996).

A pessimistic explanatory style would be one in which an individual internalizes the cause of the negative event, believes that the cause of the event is something that can be generalized to other areas of one’s life, and thinks that a similar problem will occur again in the future. An optimistic explanatory style, on the other hand, is one in which an individual externalizes the cause of the negative event, believes that the negative outcome is only related to very specific circumstances, and believes that such a problem is not likely to occur again in the future (Peterson, Seligman, & Vaillant, 1988).

Based on the orientations that men and women seem to have toward their bodies (Franzoi, 1995; Fredrickson & Roberts, 1997), it is reasonable to suggest that differences in attributional style about situations regarding the physical self may occur. In fact, research has found that women tend to make judgments, or attributions, that are self-critical (pessimistic) while men make judgments that are self-hopeful, or optimistic (Franzoi et al., in press). The current study aimed to test the most important aspect of attributional style, namely locus of causality, or the internality-externality dimension. The
attributional style dimensions of globality-specificity and stability-instability were not analyzed in this study because the internality-externality dimension of attributional style is believed to be the dimension that most closely corresponds with attributions that occur in the self-serving bias. That is, individuals who engage in the self-serving bias tend to make attributions that highlight their personal involvement in their success, but deny responsibility for their failures (Wolosin, Sherman, & Till, 1973). In other words, the self-serving bias involves taking credit for one’s successes (internalizing) and placing blame elsewhere for one’s failures (externalizing). Furthermore, the internality-externality dimension is believed to be essential because without first identifying one’s locus of causality, analyzing subsequent dimensions tapping into whether or not the cause of negative event is believed to affect future situations (stability-instability), and whether or not the cause of the negative event is believed to affect multiple areas of one’s life (globality-specificity) becomes irrelevant. Therefore, the dimension of interest in the current study was that of internality-externality which was utilized to observe evidence of the self-serving bias.

Specifically within this study, it was hypothesized that women would be more likely than men to exhibit one aspect of pessimistic thinking regarding matters of the physical self after exposure to physical attractiveness exemplars, namely, internality. That is, it was expected that women exposed to highly attractive female targets would later be more likely than men exposed to attractive male targets to attribute blame for a blind date going badly to their own physical defects. Furthermore, it was hypothesized that women would report a negative change in their mood, as evidenced by decreased positive affect and/or increased negative affect following imagining this blind date going
badly, while men would not report significant changes to their mood after imagining the blind date scenario. These results were expected due to the contention that women assess their bodies critically while men are more likely to engage in the self-serving bias when assessing their bodies (Franzoi et al., 1989; Franzoi & Klaiber, 2007; Franzoi et al., in press). To test these hypotheses, a hypothetical "blind date negative outcome" scenario was utilized because dating situations make matters of physical appearance salient (Rottman, 1966). This is believed to be especially true for blind dates where matters of attractiveness are emphasized. Past research suggests that physical appearance is the primary factor on which initial impressions are based, as a person’s physical appearance is the personal characteristic that is most obvious and accessible in social interaction (Dion, Berscheid, & Walster, 1972; Franzoi, 1995).

In this study, researchers expected to find the strongest effects regarding attributions between men and women in the experimental conditions where they’ve been primed with physical attractiveness standards for their respective sex. This priming was anticipated to elicit women’s self-critical view of themselves while it was expected to elicit men’s self-hopeful view of themselves. For this reason, predictions about control conditions were not made. While it is possible that there could have been differences between individuals in the experimental and control conditions, it was expected that the effects of exposure to images on men’s and women’s different self-views - women being self-critical and men being self-hopeful - would be strongest and most clear in the experimental conditions, which is where differences were expected. So, only hypotheses regarding men and women in the experimental condition were made.
Possible Effects of Beauty Ads on Gendered Choices

In addition to examining the effects of exposure to same-sex physical exemplars on men’s and women’s attributions regarding a hypothetical blind date going badly, another investigation of possible gender differences in responses to social events involved observing decision making in a context unrelated to physical appearance. In this case, the situation involved picking a leader or follower (problem-solver) role in a group task. As previously mentioned, beauty advertisements have been shown to negatively impact the way individuals feel about their physical selves (e.g. Bissell & Zhou, 2004; Richins, 1991; Tiggemann & McGill, 2004). However, research has also found that images priming individuals to think about their stigmatized social identities - media images for instance - can hinder performance and limit their potential for success (Steele & Aronson, 1995; Steele, Spencer, & Aronson, 2002). Such research has indicated that exposing women to gender stereotypic images induces them to adopt traditional feminine gender roles, or a more passive social-role orientation. In one such study, Davies, Spencer, and Steele, (2005) had men and women view television commercials depicting female stereotypes and then presented them with a scenario in which they would participate in a group task as either a leader or a problem solver for the activity. More specifically, this study exposed women to images intended to prime them to think about their stereotyped female social identities. That is, researchers believed that by watching footage of other women engaging in stereotypically feminine behavior, women in their study would likely adopt a stereotyped gender role when they encountered a situation in which facets of this stereotyped gender role were relevant, such as acquiring a socially acceptable role in a group task. It was found that after viewing the gender stereotypic
commercials, women were more likely to express a preference for the problem solver role instead of the leadership role, which is a more traditionally masculine role in society. The role preferences of men, on the other hand, were not found to be significantly impacted by viewing such commercials (Davies et al., 2005).

Exposing participants to these images likely reminded both the women and the men of the standards with which their sex is held to by society. Traditionally, it has been desired for women to be subservient and obedient; characteristics that are closely associated with a passive-social role orientation, while men, on the other hand, have been expected to be powerful or dominant; traits associated with a person in a position of leadership (Davies et al., 2005). One aim of the current study was to examine whether or not similar effects could be produced by exposing women and men to photographic images of same-sex physical exemplars who embody a gender stereotypic body ideal. It is likely that being exposed to a physical exemplar for one’s sex primes appropriate gender role standards. That is, the hypothesized effects (women preferring the problem solver role, and men showing a preference for the leader role) may be due to gender-role priming. When exposed to images of same-sex physical exemplars, men and women may be reminded of the gender roles which society deems appropriate for them to assume; traditionally masculine roles for men, and traditionally feminine roles for women. So, being exposed to such images may prime men and women to take on a culturally appropriate gender role.

It is also possible, and past research supports the notion, that exposure to physical exemplars objectifies women’s bodies (Fredrickson & Roberts, 1997), resulting in subsequent thinking and behavior that often conforms to gender stereotypes. Research on
objectification theory has indicated that being female in a culture that frequently objectifies the female body can cause women to experience high levels of negative affect including feelings of anxiety, shame, worthlessness, and powerlessness. The current study anticipated that exposure to fashion ads depicting same-sex physical exemplars would lead women to become more aware of an observer’s perspective of their own bodies, in which they would be very aware of their physical appearance and would likely experience effects of objectification, including potentially adopting a congruent social role; one in which women hold less power than men. Additionally, experiments have shown that objectification can negatively impact intrinsic motivation and mental concentration (Plant & Ryan, 1985). When adopting an outsider’s perspective on their bodies, women’s behavior has become more timid, uncertain, and hesitant (Fredrickson & Roberts, 1997). This suggests that women’s behavior and decision making may be restricted or compromised after being objectified and being made aware of their physical selves. Thus, objectification theory supports the notion that, after being exposed to images of same-sex physical exemplars, women would likely indicate a preference for the traditionally feminine problem-solver role, while men would indicate a preference for the traditionally masculine leader role.

To summarize our review of the literature discussed thus far, in the current study, the aforementioned lines of research were combined, examining the influence of the popular media on men’s and women’s self-evaluations of their bodies. Differences in men’s and women’s socialization experiences regarding the physical self, as well as their ability to engage in the self-serving bias were expected to be evidenced in their responses to certain social events. The current study measured men’s and women’s mood and body
esteem after viewing images of same-sex physical exemplars. It also investigated how men and women assign locus of causality following a negative hypothetical blind dating event with issues concerning physical attractiveness, and it explored whether viewing images of physical exemplars would lead men and women to show preferences for traditionally gender stereotypical social roles.

Specifically of interest was whether exposure to fashion advertisements depicting exemplars of physical attractiveness would lead to self-critical views of the female body. It was believed that viewing such images would prime women to notice a discrepancy between themselves and what is considered to be the physical ideal, which would have a negative impact on women’s reported mood and body esteem. Realization of this discrepancy was also anticipated to lead women to, when faced with the issue of a hypothetical blind date going badly, adopt an internal locus of causality and internalize the cause of this negative event, indicating that they felt as though their physical appearance was at fault for the date going badly. Furthermore, it was believed that exposure to photos of same-sex physical exemplars would remind women of the way that society objectifies the female body, which would increase the likelihood that women would show a preference for adopting a gender stereotypically passive social role as well.

This study also attempted to determine the effects that exposure to images of the male physical ideal would have on the way men self-assess their bodies and the ways in which they react to certain social events. In this case, the expectation was that male participants would react less negatively after viewing images of current male physical attractiveness standards compared to female participants, and that men would be more likely than
women to protect their feelings of self-worth by engaging in the self-serving bias (Franzoi et al., 1989; Powell et al., 2001).

**Summary of Hypotheses**

Hypothesis 1a: It was hypothesized that women exposed to the attractiveness prime for their sex would report lower mood than women not exposed to the attractiveness prime.

Hypothesis 1b: Women exposed to the attractiveness prime for their sex would report lower mood than men exposed to the attractiveness prime for their sex.

Hypothesis 2a: It was anticipated that women exposed to the attractiveness prime for their sex would be more likely to choose the “follower” social role than women not exposed to the attractiveness prime.

Hypothesis 2b: Men exposed to the attractiveness prime for their sex would be more likely to choose the “leader” social role than men not exposed to the attractiveness prime.

Hypothesis 3a: It was hypothesized that women exposed to the attractiveness prime for their sex would report lower body esteem than women not exposed to the attractiveness prime on the dimensions of weight concern and sexual attractiveness but not on the dimension of physical condition.

Hypothesis 3b: Compared to men who were not exposed to the attractiveness prime for their sex, men who were exposed to the attractiveness prime would report lower body esteem on the dimensions of upper body strength and physical attractiveness but not on the dimension of physical condition.

Hypothesis 4: It was anticipated that, after imagining a blind date going badly, women exposed to the attractiveness primes for their sex would be more likely to internalize the
cause of the negative event than men who were exposed to attractiveness primes for their sex.

Hypothesis 5: After imagining a blind date going badly, women exposed to the attractiveness primes for their sex would report less positive affect and more negative affect than men exposed to the attractiveness prime for their sex.

**Method**

**Participants**

Participants included 361 psychology students recruited from PSYC1001 courses at Marquette University to complete an online survey via “surveymonkey” for extra credit in their psychology courses. Six participants were subsequently excluded from the sample for completing a survey intended for the other sex. Thirteen participants were excluded from analysis due to their suspicion as to the true purpose of the study, which they revealed in the debriefing portion of the study.

The mean completion time was 32.17 minutes (SD = 12.24) so participants whose completion times were below two standard deviations (7.69 minutes) or above two standard deviations (56.65 minutes) from the mean were not included in the analyses (n = 65). The final sample consisted of 277 participants comprised of 110 men (55 in the experimental condition and 55 in the control condition) and 167 women (73 in the experimental condition and 94 in the control condition). Ages of participants ranged from 18-48 with a mean age of 18.91 (SD = 2.34). About 83.6% of the participants were White/European American, 4.7% were Black/African American, 4.4% were Hispanic American, 2.9% were Asian American, 2.2% were biracial, 1.5% identified as being a citizen from another country, and 0.7% identified as “other” ethnicities. Male participants
had average BMIs of 24.10, \((SD = 4.34)\), with a range of 14.94 to 44.63. Female participants had average BMIs of 22.63, \((SD = 3.41)\), ranging from 17.72 to 25.74.

**Materials**

**Magazine advertisements.** Visual stimuli were used to prime sex-specific attractiveness standards for male and female participants and included 6 advertisements for males and 6 advertisements for females from various popular magazines depicting exemplars of physical attractiveness. The control advertisements were of landscapes. Ad text was kept at a minimum. Twenty-one images (seven males, seven females, and seven landscapes) were pre-screened and pilot tested with a class of 41 undergraduate psychology students (13 men and 28 women) to ensure roughly equivalent ratings of appeal of photographs selected for the study. Participants were asked to rate each photograph on a Likert scale from 1-7 in four domains: femininity, masculinity, attractiveness, and attention-grabbing appeal. Final landscape, male, and female photographs were selected based on participants rankings of an image’s overall appeal and ability to grab one’s attention. The image with the lowest “attention” rating was dropped from each category, leaving a total of 18 images with equivalent scores to be used in the study (landscapes \(M = 6.38\), men \(M = 7.18\), and women \(M = 6.82\)).

**Measures**

**Demographic information.** Participants provided information regarding gender, age, height, weight, religious affiliation, sexual orientation, and birthday month. The birthday month of each participant was used in random assignment to experimental and control conditions (see Appendix A).
The manual for the positive and negative affect schedule - expanded form (PANAS –X). To assess participants’ mood, student participants completed the PANAS-X, which contains 60 words and phrases that describe feelings and emotions including “cheerful”, “surprised”, and “sad” (Watson & Clark, 1994). The PANAS-X has two general dimension scales: Positive Affect and Negative Affect. The Positive Affect dimension includes the emotions active, alert, attentive, determined, enthusiastic, excited, inspired, interested, proud, and strong; the Negative Affect dimension is comprised of the emotions afraid, scared, nervous, jittery, irritable, hostile, guilty, ashamed, upset, and distressed. This measure demonstrates good test-retest reliability on both higher order scales (Positive Affect \( r = .43 \), Negative Affect, \( r = .41 \)) when assessing feelings over the “past week”. Internal consistency reliabilities when assessing feelings “in the moment” in the current study yielded coefficient alphas of \( \alpha = .93 \) and \( \alpha = .78 \) for positive affect and negative affect respectively (Chronbach, 1951). This measure has excellent construct validity as each of the PANAS-X scales is strongly related to its corresponding Profile of Mood States (POMS) scale, with convergent correlations ranging from .85 to .91 (Watson & Clark, 1994) (see Appendices B and C). An error in formatting the online survey led participants to only be shown half the emotion words which had initially been intended for them to rate; five positive and five negative emotion words. The positive affect scale consisted of: inspired, attentive, proud, enthusiastic, excited, while the negative affect scale included emotions such as: dissatisfied with self, sad, afraid, ashamed, and irritable.

**Role-selection.** Participants read a description about a group task in which they were asked to rate their preferences for a role that they would play in an upcoming
activity. Participants were asked to indicate their interest in being a leader and a problem-solver (see Appendix D).

**Rosenberg self-esteem scale (SES).** To assess general self-esteem, participants completed the Rosenberg Self-Esteem Scale by indicating to what degree they agree or disagree with ten statements assessing self-worth. Such statements included “I take a positive attitude toward myself”, “I certainly feel useless at times”, and “I feel I do not have much to be proud of”. The scale ranges from 0-30, with scores between 15 and 25 falling in the normal range and scores below 15 suggesting evidence of low self-esteem (Rosenberg, 1965). The SES is a well known and very widely used measure (Franzoi & Herzog, 1986; Franzoi & Shields, 1984). The scale had high internal consistency and yielded a coefficient alpha of .82. Other than examining correlations, data collected from this scale was not analyzed in the current study, but is available for future use (see Appendix E).

**Body esteem scale.** To assess various dimensions of body esteem, participants completed the Body Esteem Scale which asks participants to indicate how they feel about 35 body parts and body functions. There are three subscales for each gender. Female subscales include: Sexual Attractiveness (e.g. nose, lips, chest/breasts), Weight Concern (e.g. waist, thighs, hips, legs), and Physical Condition (e.g. physical stamina, reflexes, muscular strength). Internal consistency when assessing each factor for women in the current study yielded coefficient alphas of .83 for sexual attractiveness, .90 for weight concern, and .86 for physical condition (Chronbach, 1951). The male subscales are: Physical Attractiveness (e.g. nose, lips, chin), Upper Body Strength (e.g. arms, chest, biceps), and Physical Condition (e.g. physical stamina, reflexes, energy level). Internal
consistency reliabilities when assessing each factor for men in the current study yielded coefficient alphas of .82 for physical attractiveness, .82 for upper body strength, and .92 for physical condition. The Body Esteem scale has shown adequate convergent validity (Franzoi & Herzog, 1986; Franzoi & Shields, 1984) (see Appendix F).

**Measure of locus of causality regarding the blind-date outcome.** To assess the degree to which participants exhibit the locus of causality (internal vs. external) associated with a pessimistic versus optimistic view of their physical selves, they completed a short measure developed for this study which assesses the way in which they explain a negative event pertaining to the physical self. To accomplish this task, participants were first asked to vividly imagine themselves in the following situation: “You go on a blind date and it goes badly, and the issue was the physical appearance of you or your date. Take some time to imagine this event happening to you. Run this blind date through your mind. When you finish doing so, go to the next page.” This measure is a reworked version of one of the vignettes used in an attributional style questionnaire for general use (Dykema et al., 1996). While the attributional style questionnaire for general use presents participants with twelve hypothetical events, the current study only used one modified vignette to examine physical appearance because presenting a blind date situation in more ways than one didn’t seem feasible. Of most interest was examining participants’ responses regarding externality vs. internality. As previously stated, the purpose of concentrating on locus of causality is because this variable is essential for measuring attributional style. That is, it must be a significant factor of attributional style in order for the other two dimensions of globality/specificity and stability/instability to be relevant. To assess externality versus internality from this hypothetical scenario,
participants indicated to what degree the negative date outcome was due to their physical appearance or their date’s physical appearance using a seven-point Likert scale ranging from 1 (my physical appearance) to 7 (date’s physical appearance) (see Appendix G).

An attributional style questionnaire for general use. To collect data regarding participants’ overall general attributional style, this measure was included in the study. Twelve hypothetical events were presented to participants in which they were asked to indicate what they believe was the cause of the event, how likely it is that the cause will continue to affect them, and if the cause they listed is something that affects all areas of life, or just the specific event posed in the question (Dykema et al., 1996). Data collected was not analyzed in the current study, but is available for future use (see Appendix H).

Delayed visual recall. To follow the cover story regarding the purpose of the “memory task” participants were asked questions about the advertisements that they saw earlier in the study (see Appendix I).

Procedure
Upon entering the experiment website, participants were told that there were five studies occurring simultaneously within the Franzoi lab which were being conducted by five different students in the clinical psychology doctoral program. They were told that they would be taking part in three of these studies within a 60-70 minute period for three extra credit points. In reality, this statement of multiple studies was simply meant to make it less likely that participants would realize that the first set of stimuli presented to them in the first part of this experimental session were designed to cognitively prime physical attractiveness standards, with their effects measured in the later bogus study sessions.
Based on this deception, all participants first completed a study titled “Memory Task”, which contained the advertising prompts. Each participant read the following description of this study: “The first study you will participate in examines visual delayed recall of details of advertisements. You will first view a series of magazine advertisements and then later at the end of the session answer a number of questions including items about the content and effectiveness of these ads.” When the last advertisement was shown on the computer screen, participants were then asked to choose two of the four additional studies listed to complete. There were four links: first, participants selected one of two problem solving task studies (A or B) to complete; after finishing the problem solving task study, each participant was then able to choose one of two interpersonal style studies (A or B) to complete. Unbeknownst to the participant, both problem-solving task links led to the same study that explained a group activity and asked participants to rate their preference for being a leader and a problem solver for that task. Also, both of the interpersonal style study links led to the same study consisting of the Self-Esteem Scale (Rosenberg, 1965), the Body Esteem Scale (Franzoi & Shields, 1984), and a measure of locus of causality regarding a blind-date outcome. As previously noted, the purpose here was to have all participants complete the questionnaires of interest without making a deliberate connection between the priming of the first study (exposure to images of the physical ideal) and the questions being asked. Awareness of the priming or the “true” purpose of the first study would likely result in response biases and irrelevant data.

In the first stage of this study, participants viewed magazine advertisements but were randomly assigned to one of two conditions: same-sex ideals or a control condition in
which they viewed photographs that were not related to the body (i.e. landscapes).

Participants were randomly assigned to conditions by indicating their birth month. For example, individuals with birthdays in January, March, May, July, September and November were assigned to the same-sex ideal condition, and those with birthdays in February, April, June, August, October, and December were assigned to the control condition.

In the “memory task”, participants viewed magazine advertisements and were told that they would later answer questions about these images to test their visual delayed recall. In the treatment and control conditions, participants were shown six images. The initial plan was for each image to appear on the screen for five seconds, totaling to 30 seconds, which would be equivalent to the duration of a television commercial, which was a stimulus used in previous research to successfully prime for gender roles (Davies et al., 2005). However, due to limitations of the survey program, it was not possible to utilize a timer for each page. So, each page required that participants clicked an “OK” button before they were able to click “next” and advance to the next slide. This was done to ensure that participants would not be able to rapidly click through all slides without viewing any of the images. After viewing the photographs, participants were asked to complete the PANAS-X (Watson & Clark, 1994) by indicating to what extent they were feeling each of the emotions ‘right now’.

Participants were then asked to take part in additional studies of their choice. The first choice was between “Problem Solving Task A” and “Problem Solving Task B”. In both “Problem Solving Tasks” (A and B) participants read about a scenario involving a group activity with other students. They were then asked to indicate their interest in being
both a leader and a problem solver for this task. To ensure that participants devoted sufficient thought to their decision regarding leadership, they were made to believe that the group activity with other students would actually be taking place at a later date. They were told that they would be contacted via e-mail for information regarding completion of that study, and that their preference regarding leadership would be taken into consideration when forming the activity groups. This minimal deception was necessary because it was believed that participants would take the leadership decision more seriously if they believed that the scenario was actually going to occur in reality versus hypothetically.

The problem-solving task was followed by participants choosing between “Interpersonal Style Study A” and “Interpersonal Style Study B”. In both “Interpersonal Style” studies (A and B) participants were asked to complete the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Body Esteem Scale (Franzoi & Shields, 1984). They were also asked to vividly imagine themselves in the following social situation: “You go on a blind date and it goes badly, and the issue was the physical appearance of you or your date. Take some time to imagine this event happening to you. Run this blind date through your mind. When you finish doing so, go to the next page.”

While imagining the blind date scenario, participants were asked to complete the PANAS-X (Watson & Clark, 1994) again, but this time they were asked to indicate what their emotions/feelings would be immediately after the date ended. As they continued to imagine this bad blind date, participants were asked to complete the Measure of Locus of Causality regarding a Blind-Date Outcome, followed by the Attributional Style Questionnaire for General Use (Dykema et al., 1996).
Next, participants were informed that since enough time had elapsed they were going to be tested on their visual delayed recall of the advertisements they saw at the beginning of the study (see Appendix I). The purpose of these questions was to follow the cover story as well as to obtain qualitative data regarding participants’ familiarity with and thoughts about the selected images.

Finally, after the entire research protocol was completed, participants were asked to describe to the best of their abilities the purpose of each of the “studies” they participated in (Study 1: “Memory Task” about advertising, see Appendix B; Study 2: “Problem Solving Task”, see Appendix D; Study 3: “Interpersonal Style Study”, see Appendices C, E, F, and G) (see Appendix J).

This study was designed to present each of the aforementioned prompts and measures in different phases. Phase one of the study involved the advertisements, the mood measure, and problem-solving role choice, followed by the self-esteem and body esteem measures. Phase two involved the presentation of the hypothetical blind date vignette followed by the mood measure and attributional style measure about the physical self, and a general attributional style measure. One week after finishing the research protocol, participants received an e-mail from the principal investigator notifying them that the “group activity” (for which they indicated preferences for leadership and problem-solver roles) would no longer be taking place. They still received all three extra credit points and they were thanked for their willingness to participate (see Appendix K).

**Results**

The various statistical analyses are presented with a restatement of the hypotheses associated with the related set of analyses. Additionally, although hypotheses regarding
self-esteem were not posited, the relationship between participants’ self-esteem and each dependent variable was investigated. Since the self-servings bias is a means by which one protects one’s self-esteem, it was believed to be important to examine possible associations between self-esteem and each of the outcome variables that were measured. Findings are only reported for variables with which self-esteem was found to be significantly correlated.

**Mood Immediately After Viewing Images**

A one-way between-groups multivariate analysis of covariance (MANCOVA) was conducted to determine whether there were mood differences based on gender and whether participants viewed physical attractiveness primes for their sex or not. Two dependent variables were used: positive affect and negative affect. Participants’ Body Mass Index (BMI) levels were used as the covariate in this analysis to determine if BMI impacted emotional reaction to viewing images of physical exemplars. Results indicated that BMI was not found to have a significant effect on participants reported affect $F(2, 269) = .59, p = .56$; Wilks’ Lambda = .99; partial eta squared = .004. Additionally, there was no significant main effect of condition $F(2, 269) = 1.46, p = .23$; Wilks’ Lambda = .99; partial eta squared = .01. However, this analysis revealed a significant main effect of gender, $F(2, 269) = 17.05, p < .001$; Wilks’ Lambda = .89; partial eta squared = .11, but no significant interaction effect was found $F(2, 269) = 1.21, p = .30$; Wilks’ Lambda = .99; partial eta squared = .009. When the results for the dependent variables were considered separately, analyses revealed that women reported significantly more positive affect $F(1, 270) = 20.88, p < .001$, partial eta squared = .07, $(M = 10.16, SD = 4.42)$ than male participants $(M = 7.74, SD = 4.17)$ and more negative affect $F(1, 270) = 9.89, p =$
.002, partial eta squared = .04, \((M = 13.26, SD = 4.89)\) than male participants \((M = 11.27, SD = 5.41)\) immediately after viewing the ads/photographs. Contrary to what was hypothesized, findings revealed that female participants exposed to the attractiveness primes did not report significantly lower mood than their peers in the control condition, male participants exposed to the attractiveness prime did not report lower mood than men in the control condition, and female participants who viewed images of physical attractiveness exemplars were not found to report significantly lower levels of mood than male participants who were also exposed to the attractiveness prime for their gender. Instead, results revealed that regardless of condition, women reported both more positive and negative affect immediately after viewing the ads/photographs.

The relationship between self-esteem and participants’ reported mood immediately after viewing the images was also analyzed. Pearson correlation analysis revealed a significant positive correlation, indicating that participants with higher self-esteem were more likely to report higher levels of positive affect after viewing images of same-sex physical exemplars, \(r = .34, p < .05\).

**Leadership Desire**

A two-way between groups analysis of covariance (ANCOVA: Gender x Condition) on leadership desire used BMI as a covariate. Results indicated that BMI was not significantly associated with leadership desire, \(F(1, 270) = .16, p = .69\), partial eta squared = .001. Analyses revealed that there was no significant main gender effect in participants’ desire to be a leader in a future group activity, \(F(1, 270) = .45, p = .50\), partial eta squared = .002. There were also no significant differences across conditions, \(F(1, 270) = .45, p = .50\), partial eta squared = .002, and no significant interaction effect,
Counter to expectations, after being exposed to an attractiveness prime, women were not found to be more likely to show a preference for the “follower” role than women in the control condition, and men were not more likely to show a preference for the “leader” role than men in the control condition.

**Body Esteem**

**Women.** A one-way between groups multivariate analysis of covariance (MANCOVA) was performed to investigate differences in body esteem between female participants in the experimental and control conditions. The independent variable was the condition in which the participant was placed. Three dependent variables were used: the female body esteem dimensions of Sexual Attractiveness, Weight Concern, and Physical Condition. Participants’ BMI levels were used as the covariate in this analysis to examine the effects of controlling for BMI of respondents on the reported body esteem. Results indicated that there was only a marginally significant difference in the body esteem of women in the experimental condition and those in the control condition, $F(3, 162) = 2.50, p = .06$; Wilks’ Lambda = .96; partial eta squared = .04. However, when examined more closely, there were no significant differences in body esteem on the dimensions of Sexual Attractiveness, $F(1, 164) = .76, p = .38$, partial eta squared = .01; Weight Concern, $F(1, 164) = 2.24, p = .14$, partial eta squared = .01; or Physical Condition, $F(1, 164) = .07, p = .80$, partial eta squared < .001. Incidentally, this analysis did reveal that BMI had a significant effect on women’s body esteem dimension of Weight Concern, $F(1, 164) = 18.10, p < .001$, partial eta squared = .10, with Pearson correlation analysis revealing that female participants with lower BMIs were more likely to report higher levels of Weight Concern body esteem, $r = -.31, p < .001$. 

$F(1, 270) = .08, p = .77$, partial eta squared < .001.
Men. A one-way between groups multivariate analysis of covariance (MANCOVA) was performed to investigate differences in body esteem between men in the experimental and control conditions. Three dependent variables were used: the male body esteem dimensions of Physical Attractiveness, Upper Body Strength, and Physical Condition. Participants’ BMI levels were used as the covariate in this analysis to examine the effects of controlling for BMI of respondents on the reported body esteem. Results revealed that BMI was significantly associated with men’s body esteem across the two conditions, $F(3, 103) = 9.34, p < .001$; Wilks’ Lambda = .79; partial eta squared = .21. However, closer analysis of the between-groups effects indicated that BMI was not found to have a significant effect on men’s body esteem on the dimensions of Physical Attractiveness, $F(1, 105) = .36, p = .55$, partial eta squared = .003, Upper Body Strength, $F(1, 105) = .50, p = .48$, partial eta squared = .005, or Physical Condition, $F(1, 105) = 1.13, p = .29$, partial eta squared = .01.

More importantly, the analysis revealed a significant main effect indicating differences between men in the experimental and control conditions, $F(3, 103) = 3.73, p = .01$; Wilks’ Lambda = .90; partial eta squared = .10. Specifically, there were significant differences on the body esteem dimension of Physical Attractiveness, $F(1, 105) = 7.58, p = .01$, partial eta squared = .07, but not on the dimensions Upper Body Strength, $F(1,105) = 2.20, p = .14$, partial eta squared = .02, or Physical Condition, $F(1, 105) = 2.78, p = .10$, partial eta squared = .03. This result indicated that men in the experimental condition reported significantly higher body esteem on the dimension of physical attractiveness ($M = 36.98, SD = 7.54$) than men in the control condition ($M = 31.09, SD = 13.02$).
Mood After Imagining a Blind Date Going Badly

A one-way between groups multivariate analysis of covariance (MANCOVA) on affect/mood data at Time 2 (after imagining a blind date going badly) was conducted. Two dependent variables were used: positive affect and negative affect. Participants’ Body Mass Index (BMI) levels were used as the covariate in this analysis to determine if BMI impacted emotional reaction after imagining a blind date going badly. Results showed that BMI was marginally significantly associated with affect after imagining a blind date going badly, $F(2, 269) = 2.38, p = .09$; Wilks’ Lambda = .98; partial eta squared = .02. However, closer examination of between-subjects effects indicated that BMI was only marginally associated with positive affect at Time 2, $F(1, 270) = 3.21, p = .08$; partial eta squared = .01. A Pearson correlation analysis also indicated a marginally significant relationship between BMI and positive affect at Time 2, $r = .12, p = .05$.

Additionally, analyses did not reveal a significant main effect of gender, $F(2, 269) = 1.55, p = .21$; Wilks’ Lambda = .99; partial eta squared = .01, or condition, $F(2, 269) = 1.11, p = .33$; Wilks’ Lambda = .99; partial eta squared = .008. However, there was a significant gender-condition interaction effect, $F(2, 269) = 3.33, p = .04$; Wilks’ Lambda = .98; partial eta squared = .02. When the results for the dependent variables were considered separately, the only difference to reach statistical significance was positive affect, $F(1, 270) = 6.62, p = .01$; partial eta squared = .02. This significant interaction effect indicated that men in experimental condition reported more positive affect ($M = 12.54, SD = 5.61$) than men in the control condition ($M = 10.43, SD = 6.86$), while women in experimental condition reported less positive affect ($M = 10.45, SD = 4.25$) than women in the control condition ($M = 11.84, SD = 4.78$).
Locus of Causality

A two-way between groups analysis of co-variance (ANCOVA: Gender x Condition) was conducted to compare the locus of causality of participants; specifically investigating how individuals would explain the cause of a hypothetical blind date going badly. Participants’ calculated BMI levels were used as the covariate in this analysis. Results indicated that BMI had a significant effect on the way individuals attribute the cause of a blind date going badly, \( F(1, 257) = 15.52, p < .001 \), partial eta squared = .06. Pearson correlation analysis revealed that participants with lower BMIs were more likely than those with higher BMI scores to externalize the cause of the blind date going badly and assign blame to the physical appearance of their date, \( r = -.24, p < .001 \). This finding is logical, given what we know about the physical attractiveness stereotype, in which individuals tend to expect people who are physically attractive to possess positive traits and qualities (Dion et al., 1972). It would follow that those with lower BMIs would be more likely to make external attributions for a blind date going badly compared to people with higher BMIs, because people with lower BMIs are presumed to have superior characteristics and tend to be viewed in a more positive light.

This analysis also revealed a significant main effect of condition, \( F(1, 257) = 4.27, p = .04 \), partial eta squared = .02, but no significant main effect of gender, \( F(1, 257) = .46, p = .50 \), partial eta squared = .002, or significant interaction effect was found, \( F(1, 257) = .01, p = .92 \), partial eta squared < .001. Specifically, it was found that both men and women in the experimental conditions (\( M = 4.55, SD = 1.90 \)) had a tendency to externalize the cause of the blind date going badly and assign fault or blame to their
date’s physical appearance instead of their own physical appearance more often than individuals in the control conditions ($M = 4.17, \ SD = 1.75$).

So, analyses revealed that both male and female participants were equally likely to externalize the cause of the blind date going badly when they were in the experimental condition and had been exposed to images of the physical ideal for their respective gender. These participants were primed to be considering physical attractiveness when imagining this scenario. The prime did appear to affect attributions, just not in the way that was anticipated.

The relationship between locus of causality and participants’ self-esteem was also analyzed. Pearson correlation analysis revealed a significant negative correlation indicating that participants with higher self-esteem were more likely to internalize the cause of the hypothetical blind date going badly, $r = - .25, p < .05$. These results are counterintuitive given that one would expect individuals with lower self-esteem to internalize the cause of the blind date going badly and blame their own physical appearance after viewing images of same-sex physical exemplars.

**Discussion**

After reviewing the statistical analyses, it was determined that the data did not support the hypotheses that, when viewing images of physical exemplars in the media, women would be more likely to be negatively impacted in body esteem and mood, that they would be more likely to adopt an internal locus of causality regarding a blind-date outcome, and that they would make gendered choices regarding role selection in a social context. Additionally, exposing individuals to images of same-sex physical exemplars was not found to produce the negative effects as they were hypothesized. The negative
effects that viewing images of physical exemplars had on women were not expressed overtly, but emerged later in the study when women’s reported affect was inconsistent with their external locus of causality regarding a blind date going badly. Also, counter to expectations, results demonstrated that both men and women reported a more self-hopeful view of themselves by responding with an externalizing explanatory style after imagining a blind date going badly.

Interestingly, results indicated that men and women made a similar cognitive judgment when imagining a blind date going badly; that is, both adopted an external locus of causality and denied blame. Men’s and women’s reported moods, however, were opposite when comparing those in the experimental and control conditions. More specifically, it was found that women in the experimental condition reported less positive affect than women in the control condition after imagining a hypothetical blind date going badly, while men in the experimental condition reported more positive affect than men in the control condition after imagining the same event. This finding possibly highlights the ability that men have to engage in the self-serving bias, while women, despite their efforts, are more negatively impacted by situations which emphasize physical appearance.

**Gender Comparisons in Locus of Causality**

Results examining the effects of viewing images of the physical ideal on one aspect of individuals’ explanatory style (or attributional style) demonstrated that differences were dependent on the condition to which the participant had been assigned. That is, it was found that both men and women in the experimental conditions (exposed to images of physical exemplars) had a tendency to externalize the cause of a
hypothesized blind date going badly and blame it on the physical appearance of their date. As physical appearance is a more salient issue for women than men in today’s society (e.g., Franzoi, 1995), it was expected that – regardless of condition - women would be more likely to internalize the cause of a hypothetical blind date going badly, and blame their own physical appearance, while men would externalize and blame their date’s physical appearance for not living up to the images of physical perfection that are commonly seen in abundance. In other words, it was anticipated that men would engage in the self-serving bias and adopt an explanatory style which indicated that they were self-hopeful by holding an external locus of causality regarding the blind-date outcome. Women, on the other hand, were expected to indicate that they held a self-critical view of themselves by being more likely to adopt an internal locus of causality regarding the blind-date outcome. However, that was not the case. Instead, the outcome demonstrated that individuals (both men and women) in the experimental condition, who saw pictures of physical exemplars, reacted defensively, or self-servingly, to a perceived threat to one’s self, and in turn, externalized blame for an unsuccessful blind date.

The observed association between participants’ self-esteem and locus of causality, on the other hand, proved to be more perplexing than one would have expected. Though results indicated that both men and women adopted an external locus of causality after imagining a blind date going badly, the utility of this cognitive judgment may be less clear. That is, analyses indicated that individuals with higher self-esteem were more likely to internalize the cause of the negative event than were individuals with lower self-esteem, which is counter to what would be expected. Additional research examining the
relationship between self-esteem and one’s attributional style regarding matters of the physical self may be necessary to better interpret such findings.

**Gender Comparisons in Mood**

According to self-reports, women were not found to be more negatively impacted than men in terms of how viewing images of physical exemplars made them feel (affect), or how it made them feel about their own bodies (body esteem). Mood effects did not happen right away (Time 1; immediately after viewing the images) or appear when directly measured. Differences in mood did appear, however, later when the study prompted participants to think about a hypothetical blind date going badly (Time 2). It was at this time that mood effects between the experimental and control conditions appeared, with women who saw the physical exemplars reporting less positive affect than the controls while exactly the opposite happened for men. This could be evidence that men are much better at engaging in the self-serving bias than are women, especially when it comes to managing their emotions.

It should be noted that after viewing either images of the physical ideal or photos of landscapes, women reported more affect – in general – than men; that is, women reported higher levels of both positive and negative affect immediately after viewing the stimuli. These findings may reflect the findings from previous research indicating that women tend to report more negative affect than men while they also report being equally happy as men (Fujita, Diener, & Sandvik, 1991). In making sense of such disparate emotional reports, Fujita and colleagues (1991) suggested that perhaps both genders experience emotional difficulty at the same rate, but men may be more reluctant to admit it and share their emotions than women. So, if women tend to be more open to reporting
and sharing their emotions than men, it is possible that women in this study scored higher on measures of affect than men not because of their emotional reactions, but due to their willingness to endorse and report emotions.

In regards to affect reported after imagining a hypothetical blind date going badly, results indicated that men in the experimental condition, who were exposed to the attractiveness primes, reported more positive affect than men in the control condition who were not exposed to the attractiveness primes. This finding may suggest that men who were exposed to the attractiveness primes experienced a perceived threat to their self esteem and reacted defensively by reporting positive emotions.

In other words, men made a cognitive judgment regarding causality (externalized blame) and had a positive mood that was consistent with this judgment. The cognitive judgment that they made was in line with their mood, reflecting the self-serving bias. The same cannot be said for women’s cognitive judgment and accompanying mood. For women, the cognitive judgment and reported mood are inconsistent and discordant. Even though women adopted an external locus of causality and blamed their date’s appearance for the blind date going badly, their reported mood indicated that they were still negatively impacted by being exposed to physical exemplars. This is the problem that women tend to face in social contexts regarding the body. Society’s standards for beauty have become increasingly difficult to meet (Dittmar, 2005; Posavac & Posovac, 1998). The current body ideal is nearly impossible to attain without resorting to medical procedures or plastic surgery. The importance that society places on physical attractiveness for women has been emphasized from a young age and throughout their entire lives, and in turn, becomes an integral factor influencing the way women think and
feel about themselves. So, it is possible that even when women try not to let discrepancies that they see between themselves and “perfect” models make them feel badly, it might inevitably have a negative impact.

**Impact of Exposure to Images of the Physical Ideal on Role-Selection**

There was no evidence in this study that viewing images of the physical ideal led participants to respond in a manner that endorsed gender stereotypic role preferences for a group activity in which they believed they would be asked to participate. More specifically, it was found that men in the experimental condition were no more likely than men in the control condition to prefer a more traditionally masculine leadership role, and women in the experimental condition did not show a stronger preference than women in the control condition for the more traditionally passive feminine role of problem solver. This result may be due to the lack of immediacy of the situation as it was presented to the participants. In deciding what role to assume (leader/follower) in a group activity, student participants were most likely in their dorm rooms making a choice for the distant future with little immediacy or personal investment in the scenario. It is possible that the results would have been different if participants had been required to complete the experiment in a lab where they would have been making choices that would have had immediate consequences.

In regards to experiments aimed at measuring the effects of gender stereotypic images on men’s and women’s role preferences, one may want to further contemplate which types of stimuli best elicit gender stereotypic responses. For instance, the original study on which this partial replication was based (Davies et al., 2005) utilized video images – television commercials – and found that women adopted a more traditionally
feminine and passive role when they had seen images of stereotypically female activities, while the role preferences of men were not significantly influenced by viewing women behaving in stereotypically feminine ways. The current study used photographs but did not yield similar results. Further research may be beneficial to determine whether photographic images are capable of eliciting responses indicative of such preferences for gender stereotypical roles. Though it would be reckless to rule out using these types of stimuli without additional studies and replications, it is something to consider.

More likely, however, is that the current study was unable to demonstrate that exposure to images of same-sex physical ideals affects men’s and women’s role preferences because it held unrealistic expectations about the utility of its stimuli. Specifically, Davies and colleagues (2005) successfully primed women to prefer a stereotypical female gender role by showing them video footage of gender stereotypically feminine behavior. This manipulation revealed that female participants were primed to consider their prescribed role in society which was evidenced by an increase in preference for a more passive social role. The current study, on the other hand, aimed to obtain similar results by priming gender role standards through simply showing photographic images of gender stereotypic body image ideals. It is possible that the expectation for the utility of video images to also apply for still photographic images in the current study was a bit of a stretch. It might have been unrealistic to anticipate that still photographic images would have an effect identical to that of stimuli highlighting gender stereotypic behavior. To assume that images of physical perfection would yield similar evidence of elicited gender stereotypic role preferences as produced by video
images was perhaps too far of a stretch, as the stimuli were unable to produce such results.

**Effects on Body Esteem**

Results of the study did not find evidence to suggest that exposing women to images of the physical ideal negatively impacted their body esteem. However, reported BMI levels were found to be significantly related to the body esteem of women; those with lower BMIs tended to score higher on the body esteem dimension of Weight Concern, indicating that these women felt better about certain body parts or features than women with higher BMIs (including weight, figure or physique, hips, body build, thighs, buttocks, waist, appearance of stomach, legs, appetite). These effects were not found in men; thus, the extent to which BMI was associated with dimensions of male body esteem was less clear. Additional research would be beneficial in examining the ways in which men’s BMIs are associated with specific body dimensions.

The body esteem of men, on the other hand, was found to be significantly impacted by exposure to images of male physical exemplars. Specifically, it was found that men in the experimental condition (who were exposed to the attractiveness primes for their sex) reported significantly higher levels of body esteem on the dimension of Physical Attractiveness than men in the control condition who were not exposed to the attractiveness primes. This finding again reinforces the idea that men may have been responding to the images with a self-hopeful view of themselves, and responded with scores to indicate that they were highly satisfied with their physical appearance. That is, men, when exposed to images of same-sex physical exemplars, responded with a self-
hopeful view of themselves and reported liking their own physical characteristics much more than men who weren’t “threatened” and did not view these images.

Limitations and Future Research

As already noted, one limitation of the current study was that participants were able to complete the survey online, from any computer. Participants did not have to enter a campus computer lab to complete the questionnaire in a controlled setting. This led to a decrease in standardization of the data collection process. For instance, it is possible that some participants may have been filling out the questionnaire while being distracted by various activities such as visiting with friends or roommates, watching television, texting, listening to music, etc. In order for the priming to have been optimally effective, this experiment required full attention and concentration of the participants.

The majority of participants in this study reported having average (normal or healthy) BMIs. This data would have been more accurately obtained by having participants come into a lab to be measured and weighed by researchers to determine true BMI levels. Since the majority of participants in this study had normal BMIs, the sample was unable to demonstrate ways in which being exposed to such images influences individuals who may be vastly overweight or who have bodies that do not mirror those of physical exemplars portrayed in the media. Future studies may aim to examine these other populations with more selective sampling procedures.

Research done in the area of body image that wishes to incorporate priming should be done in a controlled setting with highly standardized procedures that limit distractions and require participants to enter a lab to complete studies. Researchers may also desire to meet participants to take their height measurements and obtain an accurate
report of their weight so that true BMIs can be calculated. Potential disadvantages to this approach, however, may include difficulty recruiting participants. While getting participants to attend research sessions can innately be an arduous task, many individuals can be uncomfortable being weighed in the presence of strangers, which may deter people from volunteering to participate in such a study, or drop out once they are informed of the full procedure. However, it is something to be considered.

Another topic that future studies may want to consider is the strength and relevance of images portrayed in today’s media. An update in this area would be beneficial to gain an understanding as to which medium the majority of young people are using that allows them to view images of physical exemplars. One idea to ponder could include determining if photographs in magazines are less effective than videos in producing priming effects. It is possible that young adults primarily consume media images through outlets such as movies and television and that magazine sources may possibly be becoming less relevant (Lefebvre, 2007). Additionally, research comparing differences in the frequency at which individuals compare themselves to famous celebrities (whom they can name) and nameless models may be beneficial. For instance, it is possible that people idolize attractive celebrities and compare themselves to these individuals more so than they may wish to look like a model that they do not know anything about.

Most importantly, however, future research should concentrate on identifying gender similarities and whether experiences that men and women have in their social worlds involving physical attractiveness are becoming more similar. The fact that women in this study did not respond by internalizing is interesting and leads one to surmise that
perhaps men and women are not as different as once believed. As previously stated, research has found that there are generally more similarities between men and women than there are differences (Hyde, 2005). However, it is also known that certain contexts can elicit disparate experiences for women and men, and that such discrepancies tend to appear in situations that are of a highly gendered context (Yoder & Kahn, 2003). In the current study, both similarities and differences were observed in the way men and women reacted to thinking about a blind date going badly, which was a highly gendered context in that matters of physical appearance were made salient. In this study, women and men were found to similarly attribute the cause of a blind date going badly to the appearance of their date. However, differences were found when women in the experimental condition reported less positive mood, which may mean that while they were cognitively externalizing, their emotions didn’t follow suit. In other words, they weren’t successful in managing their emotions by attributing the negative outcome externally, which is something that men were indeed able to do.

This study showed that men did in fact have strong reactions to the stimuli, but their responses were not self-denigrating. Instead, the results suggest that men are well equipped to deal with potential threats to the self by engaging in the self-serving bias and concentrating on what they like about themselves, and seeing themselves in the best possible light. Also, as previously mentioned, this study revealed that men and women responded similarly to a perceived threat (when they were confronted with same-sex physical exemplars). Neither men, nor women, adopted an internal locus of causality regarding the blind-date outcome or blamed themselves for not living up to society’s
physical perfection standards. Instead, men and women were both found to externalize in an attempt to present a self-hopeful view of the self.

One explanation for these findings may be that gendered contexts regarding physical appearance are becoming more similar for men and women. That is, to be chosen as a mate, men may now be expected to be more physically attractive than they were in the past. According to Oppenheimer (1997), women have been less likely to seek marriage due to their ever increasing economic status. So, since resources and income may no longer be primary reasons for women to seek permanent relationships (Cherlin, 1992; Wells & Zinn, 2004), women may instead be placing more importance on physical characteristics when looking for a potential mate. As a consequence, men today in the relationship marketplace may experience greater social pressure to place more importance on their own physical attributes than they used to.

Even though research suggests that there are contexts in which differences between men and women diminish (e.g., Hyde, 2005), there is still plenty of information supporting the idea that the area of body image is one that remains quite gendered (e.g., Franzoi, 1995; Franzoi et al., in press; Murnen, Smolak, Mills, & Good, 2003). However, it is possible that similarities in the expectations for men’s and women’s physical attractiveness may be becoming more apparent. Though this is speculation, it is possible that fascinating changes in the way that men and women experience matters regarding the physical self may be emerging.

One thing known for certain is that over time society changes and new trends, standards, and expectations can develop. Obtaining more current perspectives from individuals in today’s society could help researchers to more fully understand social
comparison processes and the specific images, standards, or ideals that seem to impact important aspects of the self including mood, body esteem, and overall feelings of self-worth.


Appendix A.

Demographic Information.

1. Please indicate your sex: Male_____ Female_____

2. Please indicate your age:

3. What best describes your ethnicity (check all that apply)

   Caucasian/White __
   African American __
   Latino/a __
   Asian American __
   Native American __
   Bi-racial __
   Citizen from another country (outside of US) __
   Other__

4. Please indicate your height:

   Feet:____ Inches:____

5. Please indicate your weight (in pounds):

6. Your religious affiliation (if any)

7. Your sexual orientation

   Completely Heterosexual  1  2  3  4  5  6  7  8  9  10  Completely Homosexual

7. Please indicate your birthday month:

   January
   February
   March
   April
   May
   June
   July
   August
   September
   October
   November
   December
Appendix B.

The *Manual for the Positive and Negative Affect Schedule- Expanded Form (PANAS-X)*. This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you are feeling this way right now. Use the following scale to record your answers:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>very slightly</td>
<td>a little</td>
<td>moderately</td>
<td>quite a bit</td>
<td>extremely or not at all</td>
</tr>
<tr>
<td>_____ cheerful</td>
<td>_____ sad</td>
<td>_____ active</td>
<td>_____ angry at self</td>
<td></td>
</tr>
<tr>
<td>_____ disgusted</td>
<td>_____ calm</td>
<td>_____ guilty</td>
<td>_____ enthusiastic</td>
<td></td>
</tr>
<tr>
<td>_____ attentive</td>
<td>_____ afraid</td>
<td>_____ joyful</td>
<td>_____ downhearted</td>
<td></td>
</tr>
<tr>
<td>_____ bashful</td>
<td>_____ tired</td>
<td>_____ nervous</td>
<td>_____ sheepish</td>
<td></td>
</tr>
<tr>
<td>_____ sluggish</td>
<td>_____ amazed</td>
<td>_____ lonely</td>
<td>_____ distressed</td>
<td></td>
</tr>
<tr>
<td>_____ daring</td>
<td>_____ shaky</td>
<td>_____ sleepy</td>
<td>_____ blameworthy</td>
<td></td>
</tr>
<tr>
<td>_____ surprised</td>
<td>_____ happy</td>
<td>_____ excited</td>
<td>_____ determined</td>
<td></td>
</tr>
<tr>
<td>_____ strong</td>
<td>_____ timid</td>
<td>_____ hostile</td>
<td>_____ frightened</td>
<td></td>
</tr>
<tr>
<td>_____ scornful</td>
<td>_____ alone</td>
<td>_____ proud</td>
<td>_____ astonished</td>
<td></td>
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<tr>
<td>_____ relaxed</td>
<td>_____ alert</td>
<td>_____ jittery</td>
<td>_____ interested</td>
<td></td>
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<tr>
<td>_____ irritable</td>
<td>_____ upset</td>
<td>_____ lively</td>
<td>_____ loathing</td>
<td></td>
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<tr>
<td>_____ delighted</td>
<td>_____ angry</td>
<td>_____ ashamed</td>
<td>_____ confident</td>
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<tr>
<td>_____ inspired</td>
<td>_____ bold</td>
<td>_____ at ease</td>
<td>_____ energetic</td>
<td></td>
</tr>
<tr>
<td>_____ fearless</td>
<td>_____ blue</td>
<td>_____ at ease</td>
<td>_____ concentrating</td>
<td></td>
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<tr>
<td>_____ disgusted with self</td>
<td>_____ shy</td>
<td>_____ drowsy</td>
<td>_____ dissatisfied with self</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C.

The Manual for the Positive and Negative Affect Schedule- Expanded Form (PANAS –X).

As you continue to imagine this blind date that went badly, we’d like you to indicate what your emotions/feelings would be immediately after the date ended. Please read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you are feeling this way right now. Use the following scale to record your answers:

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<tr>
<td>very slightly</td>
<td>a little</td>
<td>moderately</td>
<td>quite a bit</td>
<td>extremely</td>
<td>or not at all</td>
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</table>

<table>
<thead>
<tr>
<th>Item</th>
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<td>sad</td>
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<tr>
<td>active</td>
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<tr>
<td>angry at self</td>
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<tr>
<td>disgusted</td>
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<td>calm</td>
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<td>enthusiastic</td>
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<td>joyful</td>
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<td>bashful</td>
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<td>proud</td>
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<td>scared</td>
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<td>concentrating</td>
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<td>disgusted with self</td>
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<td>shy</td>
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<td>drowsy</td>
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<tr>
<td>dissatisfied with self</td>
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</table>
Appendix D.

We would appreciate your participation in a study investigating the effectiveness of various leadership strategies. This study will not be conducted in its entirety today; we will be contacting you to set up a time for you to come in to complete the study by participating in a group activity with other students. Both males and females will be eligible to participate in this activity. In this study, you can either choose to be a leader or a problem solver, but there will only be one leader assigned per group. We will do our best to match you up with your preferred choice. Both the problem solvers and the leader will be given a written description of a series of complex problems to be solved. The leader, however, will also be supplied with the answers to those problems. It’s the leader’s job to guide the problem solvers to the solutions without explicitly telling them the answers. Previous research has demonstrated that the most effective leaders in these situations have the ability to facilitate cooperative interaction among the problem solvers which requires excellent interpersonal skills; whereas the most effective problem solvers are good team players and have excellent communication skills.

What is your interest in being

A. a leader?

No interest 1 2 3 4 5 6 7 Strong Interest

B. a problem solver?

No interest 1 2 3 4 5 6 7 Strong Interest

Thank you. We will be contacting you via e-mail in a few days to set up a time for you to come in to complete the group task.
Appendix E.

*Rosenberg Self-Esteem Scale*

We would appreciate your participation in a study examining attitudes about the self and how these attitudes are related to interactions with others.

Please respond to the following items by indicating whether you Strongly Agree, Agree, Disagree or Strongly Disagree with the statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel that I am a person of worth, at least on an equal plane with others.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>I feel that I have a number of good qualities.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>All in all, I am inclined to feel that I am a failure.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>I am able to do things as well as most other people.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>I feel I do not have much to be proud of.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>I take a positive attitude toward myself.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>On the whole, I am satisfied with myself.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>I wish I could have more respect for myself.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>I certainly feel useless at times.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>At times I think I am no good at all.</td>
<td>SA</td>
<td>A</td>
<td>D</td>
<td>SD</td>
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Appendix F.

*Body Esteem Scale*

Instructions: Below are listed a number of body parts and functions. Please read each item and indicate how you feel about this part or function of your own body, using the following scale:

1 = Have strong negative feelings  
2 = Have moderate negative feelings  
3 = Have no feeling one way or the other  
4 = Have moderate positive feelings  
5 = Have strong positive feelings

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<tr>
<td>1</td>
<td>body scent</td>
<td>13</td>
<td>chin</td>
<td>25</td>
<td>figure or physique</td>
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<tr>
<td>2</td>
<td>appetite</td>
<td>14</td>
<td>body build</td>
<td>26</td>
<td>sex drive</td>
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<td>nose</td>
<td>15</td>
<td>physical coordination</td>
<td>27</td>
<td>feet</td>
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<td>physical stamina</td>
<td>16</td>
<td>buttocks</td>
<td>28</td>
<td>sex organs</td>
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<tr>
<td>5</td>
<td>reflexes</td>
<td>17</td>
<td>agility</td>
<td>29</td>
<td>appearance of stomach</td>
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<td>width of shoulders</td>
<td>30</td>
<td>health</td>
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<td>waist</td>
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<td>appearance of eyes</td>
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<td>physical condition</td>
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<td>hips</td>
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<td>legs</td>
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Appendix G.

Measure of Locus of Casuality regarding a Blind-Date Outcome

Continue imagining the blind date that had gone badly. If such a situation happened to you, what would you feel would have caused it? While events may have many causes, we want you to pick only one -- the major cause if this event happened to you.

1. To what degree was the issue (Circle one number):

   Your physical appearance  1  2  3  4  5  6  7  Your date's physical appearance

2. What specific aspect of physical appearance was the issue here?

   __________________________

3. Will this physical appearance issue affect any of your future dates? (Circle one number)

   Never again  1  2  3  4  5  6  7  Always

4. Is the cause something that just influences dating or does it also influence other areas of your life? (Circle one number)

   Just dating situations  1  2  3  4  5  6  7  All areas of your life

5. How important would this event be if it happened to you? (Circle one number)

   Not at all important 1  2  3  4  5  6  7  Extremely important

6. How stressful would this event be if it happened to you? (Circle one number)

   Not at all stressful 1  2  3  4  5  6  7  Extremely stressful
Appendix H.

Attributional Style Questionnaire for General Use.

1. Try to imagine yourself in the following situation….you have trouble sleeping.
   
a. What is the MAIN CAUSE that made this situation happen to you?
   
b. How likely is it that the cause you gave will continue to affect you?

   1  2  3  4  5  6  7
   Will never affect me  Will always affect me

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

   1  2  3  4  5  6  7
   Just this situation  Affect all other areas

2. Try to imagine yourself in the following situation….you feel sick and tired most of the time.

   a. What is the MAIN CAUSE that made this situation happen to you?
   
b. How likely is it that the cause you gave will continue to affect you?

   1  2  3  4  5  6  7
   Will never affect me  Will always affect me

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

   1  2  3  4  5  6  7
   Just this situation  Affect all other areas
3. Try to imagine yourself in the following situation….you have a serious injury.

   a. What is the MAIN CAUSE that made this situation happen to you?
   b. How likely is it that the cause you gave will continue to affect you?

          1 Will never                     2 3 4 5 6 7 Will always
          affect me                        affect me

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

          1 Just this                     2 3 4 5 6 7 Affect all
          situation                      other areas

4. Try to imagine yourself in the following situation….you can’t find a job.

   a. What is the MAIN CAUSE that made this situation happen to you?
   b. How likely is it that the cause you gave will continue to affect you?

          1 Will never                     2 3 4 5 6 7 Will always
          affect me                        affect me

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

          1 Just this                     2 3 4 5 6 7 Affect all
          situation                      other areas
5. Try to imagine yourself in the following situation….you can’t get the work done that others expect from you.

   a. What is the MAIN CAUSE that made this situation happen to you?

   b. How likely is it that the cause you gave will continue to affect you?

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

6. Try to imagine yourself in the following situation….you are fired from your job.

   a. What is the MAIN CAUSE that made this situation happen to you?

   b. How likely is it that the cause you gave will continue to affect you?

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?
7. Try to imagine yourself in the following situation….you don’t help a friend who has a problem.

   a. What is the MAIN CAUSE that made this situation happen to you?
   b. How likely is it that the cause you gave will continue to affect you?

   1  2  3  4  5  6  7
   Will never affect me  Will always affect me

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

   1  2  3  4  5  6  7
   Just this situation  Affect all other areas

8. Try to imagine yourself in the following situation….you have financial problems.

   a. What is the MAIN CAUSE that made this situation happen to you?
   b. How likely is it that the cause you gave will continue to affect you?

   1  2  3  4  5  6  7
   Will never affect me  Will always affect me

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

   1  2  3  4  5  6  7
   Just this situation  Affect all other areas
9. Try to imagine yourself in the following situation….you don’t understand what your boss wants you to do.

   a. What is the MAIN CAUSE that made this situation happen to you?

   b. How likely is it that the cause you gave will continue to affect you?

      1  2  3  4  5  6  7
      Will never affect me  Will always affect me

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

      1  2  3  4  5  6  7
      Just this situation  Affect all other areas

10. Try to imagine yourself in the following situation….a friend is very angry with you.

   a. What is the MAIN CAUSE that made this situation happen to you?

   b. How likely is it that the cause you gave will continue to affect you?

      1  2  3  4  5  6  7
      Will never affect me  Will always affect me

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

      1  2  3  4  5  6  7
      Just this situation  Affect all other areas
11. Try to imagine yourself in the following situation….you are guilty of breaking the law.

   a. What is the MAIN CAUSE that made this situation happen to you?

   b. How likely is it that the cause you gave will continue to affect you?

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?

12. Try to imagine yourself in the following situation….you have a serious argument with someone in your family.

   a. What is the MAIN CAUSE that made this situation happen to you?

   b. How likely is it that the cause you gave will continue to affect you?

   c. Is the cause you gave something that just affects this situation, or does it affect other areas of your life?
Appendix I.

*Delayed Visual Recall*

1. You were shown a number of advertisements. Please briefly describe these ads.

2. Have you seen any of these ads before?

   YES          NO

3. If yes, which ads have you seen before?

4. Which ad stands out strongest in your mind? Why?
Appendix J.

Thank you for your participation! Before this session is complete, we’d like to ask you to answer a few more questions.

1. Please provide a brief description of the first study (Visual Delayed Recall Task). Describe what you went through (what it consisted of) and what you think the hypotheses were.

2. Please indicate which second study you participated in:

   Problem Solving Task A
   Problem Solving Task B

3. Provide a brief description of the Problem Solving Task study. Describe what you went through (what it consisted of) and what you think the hypotheses were.

4. Please indicate which third study you participated in:

   Interpersonal Style A
   Interpersonal Style B

5. Provide a brief description of the Interpersonal Style study. Describe what you went through (what it consisted of) and what you think the hypotheses were.
Appendix K

*E-mail from Principal Investigator*

Attention Raven Study Participant:

Recently you completed a research protocol which asked you to indicate your preferences for a leadership role or a problem solver role in a group activity. You were informed that you would be contacted at a later date to set up a time to come in to complete this group activity. We would like to notify you that due to scheduling conflicts, this portion of the study has been cancelled. Therefore, you will not need to come in to participate in the group activity. You will still be receiving both extra credit points for completing the Raven study. Thank you for your willingness to participate!

Sincerely,
Dr. Franzoi’s Research Lab