Examining the Interaction of Weight and Ethnicity on Perceived Compatibility of Couples

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Abstract

The current study examines the effect of the race and weight of individuals within a couple on the perceived compatibility of that couple. Participants (N = 442) viewed 16 couples consisting of overweight or average-weight and Black or White individuals. Participants then rated the compatibility of the couples based on three questions about the likelihood of attraction between the individuals. Same race couples were found to be more compatible than interracial couples which was expected. Similarly, couples which consisted of same weight individuals were more compatible than those consisting of opposing weight individuals. In interracial couples, the Black male was found to be more compatible with an overweight female than was the White male. These findings indicate a prejudice against dissimilar individuals in relationships as well as a possible double standard for the weight of White vs. Black women.
Examining the Interaction of Weight and Ethnicity on Perceived Compatibility of Couples

The results of several studies indicate that the media (magazines, television, newspapers, etc) strongly depicts a thin ideal for beauty towards White women. Not only do these standards of beauty exist, they also influence how women see themselves, both in and out of relationships, and how both sexes view compatible individuals as a whole. In a meta-analysis by Groesz, Levine, and Murnen (2001), data from 25 studies was combined to reveal that, “body image was significantly more negative after viewing thin media images than after viewing images of either: average size models, plus size models, or inanimate objects” (p.1). Their results suggest that the media’s portrayal of thin women does affect how women perceive their bodies. Many popular television shows, such as King of Queens, The Drew Carey Show, and The Simpsons, depict overweight White men with thin, attractive White women. Thus, television and magazines not only set unrealistic standards for the weight of White women, they also declare to White men that being overweight will not hinder their ability to find an attractive mate (Fister & Smith, 2004; Henderson-King & Henderson-King, 1997). Additionally, in Bar-Tal and Saxe’s (1976) study of the perception of similarly and dissimilarly attractive couples, they found that stereotypes resulting from physical attractiveness benefit men more than women. For example, the idea that when unattractive people have attractive mates the unattractive man is seen as powerful, smart, and rich whereas the unattractive woman is not attributed such qualities. Moreover, overweight women are more disadvantaged than overweight men in the dating market as shown by Sheets and Ajemere (2004) which found that among college

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1 For the purposes of this study, White refers to Caucasian Americans of European descent and Black refers to African Americans.
students, heavier women were much more likely to be non-dating than average or underweight women.

Therefore, being overweight has a greater impact on attractiveness ratings for women than for men. Schweinhart, Fauver, and Coggin (2005) examined how the double standard for weight had an effect on people’s perceptions of overweight men and women in relationships. According to the positive assortative matching theory (Kalick & Hamilton, 1986), people choose partners similar to their own level of physical attractiveness. Thus, same-weight couples should be judged to be more compatible than different-weight couples. However, a double standard for weight predicts that different-weight couples in which the woman is overweight will be seen as less compatible than different-weight couples in which the man is overweight. The researchers paired photos of White overweight and average-weight men and women into heterosexual couples and participants rated how compatible they perceived the couples to be. While couples consisting of two average-weight individuals, two overweight individuals, and an overweight man and average-weight woman were seen as equally compatible, the overweight woman average-weight man couple was rated as significantly less compatible. These findings lend direct support to a double standard for weight such that being overweight negatively affects women, but not men.

In opposition to the media’s thin ideal for White women, both television and popular music represent standards of Black female beauty as being voluptuous and Black culture is more accepting of heavier female figures. Jackson & McGill, 1996, found that Black men preferred larger body types, especially when it came to certain parts of the female body, than did White men. Popular music and television refers to the
tendency of Black men to desire larger body types, especially certain parts of the female body\textsuperscript{2}. Clearly, then, there exists, in American culture, a difference between White and Black standards of female beauty, at least as they are portrayed by the media.

Although this difference does exist, the thin standard of beauty for women affects what kind of body type both Black and White women think they should have in order for men to find them attractive. Demarest and Allen (2000) used figure drawings to determine the ideal figures that White and Black men and women thought the opposite sex would find most attractive and what they themselves found most attractive. While all participants misjudged what the opposite sex listed as most attractive, young, White women were the most inaccurate in their perceptions. Both White and Black women thought that men would prefer a thinner body shape than men actually reported preferring; however, Black women were significantly more accurate in their perceptions of man’s body type preference than White women.

On the other hand, men overestimated the body size that women preferred. In this case, though, there were no significant differences between the body shapes that Black and White men perceived women would find attractive; both were equally larger. Moreover, men were significantly more satisfied with their current shape than women. (Demarest & Allen, 2000). This study suggests that while standards of beauty seem to have more of an affect on women’s perceptions of their bodies than men’s, Black women have a more accurate perception of what men think is attractive than White women. Also, while both sexes misjudged what figures the opposite sex found most attractive, women thought men wanted a thinner shape and men thought women

\textsuperscript{2} One of the most popular Hip-Hop songs from the 1990s, \textit{Baby Got Back} by Sir Mix-A-lot, literally states that, as a Black man, he “likes big butts and [he] cannot lie” (Mix-a-lot, 1992).
wanted a larger shape. These findings also seem to support the idea that women view thinness as a determinant of attractiveness. Although the study supports that men prefer a larger body type than women think they prefer, the study does not report a difference in body size preference for a mate between Black men and White men. However, if Black women were more accurate in their perceptions of what men wanted and all men, regardless of race, preferred heavier figures than women thought that they would, either Black men must be more accepting of heavier body types, or Black women have heavier standards for themselves.

Jackson and McGill (1996) found similar results to Demarest and Allen (2000) in that, regardless of race, women preferred a thinner male shape than what men believed they would prefer and thought that men would prefer a thinner female shape than they actually did. However, Black men preferred an average female body type over a slightly thin female body type and believed that other Black men would feel the same. White men, however, were equally divided in their preferences for average and thin female body types and believed that other White men would prefer thinner body types. Furthermore, Black men rated the ideal weight for women as 133 pounds whereas White men rated the ideal weight for women as 125 pounds, but both ethnicities rated 5’7” as the ideal height for women. Additionally, Jackson and McGill (1996) presented a list of personal adjectives and asked their participants to what degree they felt these adjectives represented obese same-race other-gender individuals. The list included descriptive words such as: “lazy, happy, powerful, sexy, disgusting, attractive, and sloppy” (Jackson & McGill, 1996, p. 8). According to their results, Black males “were

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3 The average weight for American women at the time was 136 pounds. (Hodge, Jackson, & Sullivan, 1993 as cited in Jackson & McGill, 1996)
less likely to associate negative characteristics and more likely to associate positive characteristics with same-race obese females” than White males (Jackson & McGill, 1996, p. 8). Additionally, Black women associated the trait of sexiness with same-race obese men more often than White women (Jackson & McGill, 1996). Perhaps most relevant: “being unsexy was strongly associated with obesity by [White] respondents of either gender, but not by [Black] respondents” (Jackson & McGill, 1996, p. 8). Thus, Jackson and McGill (1996) found that overall, White participants had a much more negative view of obese same-race opposite-gender individuals than Black participants.

Thus, Jackson and McGill (1996) found that Black men were more likely to prefer a larger body type than White men. More importantly, Black individuals of both sexes were more accepting of and associated more positive traits with obesity than White individuals. Not only did Jackson and McGill (1996) examine the personal characteristics that Black and White men and women associated with obese individuals, but they also included the importance of specific body characteristics to attractiveness. The list of physical characteristics consisted of traits like: “large breasts, large penis, shapely legs, round buttocks, slim figure, and nice smile” (Jackson & McGill, 1996, p. 6). The only significant difference between sexes or ethnicities was that Black men listed both shapely legs and round buttocks as important indicators of attractiveness whereas White men did not (Jackson & McGill, 1996). Though these findings do not necessarily indicate that Black men prefer a heavier weight for females, they do suggest that Black men do not prefer thinness to larger body types.

Although Jackson and McGill’s (1996) study seems to indicate that Blacks prefer and are more accepting of larger body types, Singh (1994) questions whether this is
due to body fat percentage overall or the differences in waist-to-hip ratios of women. In his 1994 study, Singh found that among an all Black population, both male and female participants ranked normal weight female figures as more attractive and more “desirable for a long term relationship” than heavier figures (Singh, 1994). The moderator of this finding was that figures with a smaller waist-to-hip ratio, i.e. figures with small waists and large hips, were rated as more attractive. Thus, Singh credits the stereotype that Black individuals find larger body types more attractive than Whites more to the distribution of body fat in the waist to hip ratio rather than overall percentage of body fat (Singh, 1994). This conclusion would concur with the Jackson and McGill (1996) finding that Black men show a stronger preference than White men for shapely legs and a round buttocks. Either way, Black individuals prefer a larger body type for women, the discrepancy lies simply in what part of the body is larger. However, Singh studied Black young people exclusively of White participants and thus no comparison can be made between races.

Due to the fact that findings on body type for Black women are unclear as to whether it is higher overall body fat or simply the waist-to-hip ratio that changes attractiveness level, the current study deals only with faces of individuals. Thus, facial characteristics such as cheek and chin size will be the only determinants of overall body size. By using only faces, the results will be clearer as to whether overweight Black individuals are seen as more compatible in relationships because faces reveal only overall body size and not the waist to hip ratio of body fat distribution. Previous research has led the current researchers to hypothesize that overall, overweight Black women will be seen as more compatible in relationships across the board than

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4 The most preferable waist-to-hip ratios were 0.7 and 0.8 out of 0.7, 0.8, 0.9, and 1.0 (Singh, 1993).
overweight White women due to differences in standards of beauty for the two ethnicities.

Previous research also indicates that Black men, while perhaps not preferring overweight women, are at least more accepting of them and associate fewer unfavorable characteristics with them (Jackson & McGill, 1996). Thus, a secondary hypothesis is that, in couples where the man is Black, overweight women regardless of ethnicity will be seen as more compatible than if the man is White. Oppositely, if the man is White, couples with overweight women will be rated as less compatible. Due to the prevalence in the popular entertainment media of couples that include an overweight White man with an average-weight White woman and the findings of Schweinhart, Fauver, and Coggin (2005), couples with overweight White men should be rated as compatible regardless of the weight of the White woman. Finally, because prejudice against interracial couples still exists (Lewandowski & Jackson, 2001) we expect interracial couples to be rated as less compatible than intraracial couples.

The current study acts as an expansion of the Schweinhart, Fauver, and Coggin (2005) study in that the basic methodology will be the same. However, that study used pictures of only White individuals, whereas the current study seeks to examine how the differences in body type standards for Black and White women will affect the previous results. Thus, the current study uses pictures of Black and White, overweight and average-sized men and women. The use of couples rather than individual figures will allow the current research to directly show how the double standard of weight is worse for women than for men because both overweight men and women will be paired with average-weight individuals. Therefore, the comparison will allow for more objective
observations than if the overweight individuals were viewed alone. Additionally, the third person perspective of rating the compatibility of a couple rather than rating one’s own attraction level to a presented individual will more directly reflect people’s views of societal standards rather than personal preferences. The study was performed via the Internet through a link placed on John Krantz’s website for *Psychological Research on the Net* (Krantz, 2008).

**Method**

**Participants**

The study consisted of a convenience sample of 467 participants. The participants were recruited using John Krantz’s *Psychological Research on the Net* website (Krantz, 2008) and by sending a link to the study’s website to multiple groups including students, colleagues, and psychology departments at other universities. Participants were deleted if they completed less than 80% of the study, gave no ratings of one or more couples, were under the age of 18, or appeared to have repeated the study. A total of 25 participants were deleted leaving 442 for analysis. The sample consisted of 287 women and 152 men ranging in age from 18-76 years old with a mean age of 33 years. The distribution of ethnicities in the sample was as follows: 87.8% White and 12.1% non-White. All non-White participants were combined into one ethnicity level because there were so few minority participants.

**Materials**

The stimuli for the study included thirty-two color photographs, originally obtained through an online face data base (Minear & Park, 2004). All photos were of individuals
from the neck upwards who were smiling. Digital facial photos were manipulated with the program Morpheus (2007). This program takes visual information from two digital photographs and combines the images to create a series of new photos that have different percentages of features from the two original photos (i.e. 100% photo 1 and 0% photo 2, 25% photo 1 and 75% photo 2, etc.). The program was used in order to reduce the effects of different facial characteristics on perceived level of attractiveness, producing a more homogeneous set of faces. By controlling for these facial features, the program created 4 prototypes for each race, body type, and sex (see appendix). Four photos were created in order to match each race, body type, and sex with every other possible race and body type for the opposite sex. Thus, four White, average-weight females were needed because this prototype needed to be paired with all of the following: overweight White man, average-weight white man, overweight Black man, and average-weight Black man. Additionally, touchups to photos were done through Photo Shop version 7.1.

Photos were randomly arranged into 16 heterosexual couples representing each of the 16 couple types defined by the 2 (race of male) x 2 (race of female) x 2 (weight of male) x 2 (weight of female) design. A program written specifically for this study randomly sampled, without replacement, from each set of the four faces of the same race, body type, and gender twice to form each couple. Thus, if average-weight, White female1 was used in the first couple, she could not be used again in the fifth couple. This way, all prototype faces were used once and only once and paired with every other option for weight and race of the opposite sex.

Procedure
 Upon clicking the link to the study, the participants were presented with an Informed Consent form explaining to them that they would be completing a survey on compatibility. Once agreeing to the Informed Consent, they were then presented with 16 pairs of photographs as described above. Under each pair, participants used a 7 point Likert scale to rate the likelihood that the couple would: a) be attracted to one another, b) go on a date, and c) have a successful relationship, with (1) being very unlikely and (7) being very likely. Upon completing the rating for all the couples, the participants were asked to complete a demographics form consisting of age, gender, ethnicity, weight, and height. Lastly, they were given a debriefing form.

Results

To analyze the data, the researchers conducted a 2 (female race) X 2 (female weight) X 2 (male race) X 2 (male weight) ANOVA with repeated measures for each variable. There was a significant interaction between race of female and weight of female such that couples with average weight Black women ($M = 3.183$) were rated as more compatible than couples with average weight White women ($M = 3.074$), $p < .001$. However, there was no difference between ratings of couples with overweight Black women ($M = 3.089$) and couples with overweight White women ($M = 3.078$), $p = 0.669$. There was also not a significant interaction between race of male and weight of female; neither Black men nor White men were rated as more compatible with either overweight or average-weight females.

*Effects of Race and Weight Similarity*
There was a significant interaction between male race and female race such that interracial couples were rated as less compatible than same race couples (see Figure 1), $F(1,441) = 163.64, p < .001$. Similarly, there was a weight of male by weight of female interactions such that same weight couples were more compatible ($M = 3.45, 3.18$) than couples in which the weight of the female differed from the weight of the male ($M = 3.02, 2.93$), $F(1,441) = 102.1, p < .001$.

*Figure 1.* Interaction between race of male and race of female

To analyze the relationship between the race and weight of the female to the race and the weight of the male, researchers examined the four way interaction. The interaction between female race, female weight, male race, and male weight was also significant $F(1, 441) = 40.4, p < .001$. In order to analyze this interaction, couple types were separated into two sets of same-race pairs (both White or both Black) and two sets of interracial pairs (male White / female Black and male Black / female White) and pairwise comparisons were conducted for both weight of female and race of female. As
seen in Figure 2, among same race couples, the only significant difference was that same-weight couples \((M = 3.68, 3.72, 3.81, 3.74)\) were rated as more compatible than different-weight couples \((M = 3.25, 3.27, 3.17, 3.18)\), all \(ps < .001\).

*Where AFOM = average female, overweight male and OFAM = overweight female, average male.*
Effects of Race and Weight Dissimilarity

The same pattern was not found for interracial couples (see Figure 3). [Try to set up this next part so you are contrasting it more with what was found for same-race couples or addressing another pattern that you are expecting. See suggestion below about keeping the order of x-axis labels constant across the two figures.] When the male is Black and overweight there is no difference for female weight between two overweight individuals (OFOM, $M = 2.42$) or an overweight male and an average female (AFOM, $M = 2.42$), $p = 1$ (see figure 3).

Figure 3. Compatibility Ratings for Interracial Couples.

If the male in the couple is Black and average weight, there is also no significant difference for female weight: two average weight individuals (AFAM, $M = 3.15$) or an average weight male and an overweight female (OFAM, $M = 3.06$) have similar
compatibility ratings, $p = .325$. However, when the male is White, a different pattern emerges; though there is still no difference for female weight when the male is overweight as seen in Figure 3, (AFOM, $M = 2.855$, OFOM, $M = 2.858$, $p = .975$), there is a difference for weight of female if the male is average weight. Among interracial couples, there is a difference in compatibility ratings for the weight of the female such that average weight Black females ($M = 3.17$) are more compatible than overweight Black females ($M = 2.65$) when the male is White and average weight, $p < .001$. Gender of participant had no significant effects. Since the majority (87%) of the sample was White, the researchers chose not to analyze this variable because the ratings of white participants could not accurately be compared to those of Black participants.

**Discussion**

Our primary hypothesis that overweight Black women would be more compatible in relationships than overweight White women was not directly supported. There was no difference between the overall compatibility ratings of couples with overweight Black women and couples with overweight White women. The hypothesis that Black men would be seen as more compatible with overweight women regardless of their race than White men was also not directly supported. The main significant finding of this study was that couples consisting of similar individuals are more compatible than couples consisting of different individuals. As expected, same-race couples were rated as more compatible than interracial couples (see figure 1). Thus, similarity of race leads to higher compatibility ratings which supports the findings of Lewandowski and Jackson, 2001. Additionally, among same race couples, those which consisted of individuals of
similar weights were more compatible than couples consisting of opposite weight individuals (see Figure 1).

The findings of Schweinhart, Fauver, and Coggin (2005) were not supported among White couples; the overweight male, average female couple was not more compatible than the average male, overweight female couple. Similarly, among Black couples, there was no difference between the overweight male, average female couple and the average male, overweight female couple. Overall, couples in which the man and woman are the same race and weight are more compatible than either interracial couples or couples in which the man and woman are different weights (see Figures 1 and 2). This finding supports the assortative matching hypothesis (Kalick & Hamilton, 1986), in that, if people of similar attractiveness levels are seen as more compatible, then people of similar race and weight would also be seen as more compatible.

Among interracial couples, however, the pattern of same weight individuals being more compatible was not found across all couple types. Interracial couples consisting of two average-weight individuals were rated as more compatible than any other couple regardless of whether the male or the female was Black or White. Also regardless of race, the two overweight individuals and the overweight male, average-weight female couple were rated as less compatible than the couple consisting of two average-weight individuals. The most significant difference among interracial couples occurs in the average-weight male, overweight female couple such that when the male is White, the couple is less compatible than when the male is Black (see figure 3). If the male is White and average weight, when paired with an overweight Black female (OFAM) the couple is much less compatible than when the Black female is average weight.
However, when the male is Black and average weight, the weight of the White female he is paired with does not affect compatibility ratings (see figure 3). This finding seems to support the idea that Black males are more accepting of overweight females than White males, but only among interracial couples. If this were true, it would also support the findings of Jackson and McGill, 1996, in that Black males are more accepting of and associated fewer unfavorable characteristics with overweight women than White males. Yet, again, the findings are only true of interracial couples and not same race couples.

Though the Black male interracial couple did seem to be more compatible with overweight women, this finding could be due to the social standard for interracial relationships. Model and Fisher (2002) found that, in America, interracial relationships in which the male was Black were viewed as more acceptable by participants than interracial relationships where the female is Black. Thus, the difference between the Black male vs. White male OFAM couple could be due simply to greater acceptance of interracial relationships in which the male is Black. However, if the difference were merely due to the standards for interracial relationships, one would expect to find this trend among all interracial relationships, when in fact the opposite is true. Among average weight couples, the race of the male doesn’t matter and among overweight couples and average female, overweight male couples, the couples with a White male are more compatible than those with the Black male (see figure 3). Thus, these findings don’t support the social standard that more Black men are in interracial relationships than Black women.

Exchange theory may perhaps more accurately explain the current findings. Exchange theory postulates that, since Americans tend to marry within a specific social
group, such as race, when an individual joins with someone outside of their social group, the person from the lower social caste has something extra to offer to the relationship in exchange for their lower social status (Merton, 1941 as cited in Murstein, Merighi, & Malloy, 1989). A study by Murstein, Merighi, and Malloy in 1989 sought to explore how the exchange theory works for physical attractiveness. Thus, their theory was that, if a White person was dating a Black person, the Black person would have to be more attractive. Murstein, Merighi, and Malloy (1989) found that when participants rated the attractiveness of individuals within interracial couples, the Black individual was rated as more attractive than the White individual by outside judges. This study relates to the current investigation in that, if thinness is a measure of attractiveness (which based on media standards, it seems to be), and if, within American society Blacks are seen as a lower social caste than Whites, then exchange theory can be applied to couples in which the Black individual is average weight and the White individual is overweight. That is to say, overweight White individuals dating within a similar social caste (same race) are not compatible with average weight individuals (see figure 2). However, if these overweight White individuals are dating within a perceptually lower social group (Blacks) they would be seen as compatible with average-weight individuals, a finding true within the current study, because the average-weight individuals have something more to offer the relationship: attractiveness (see figure 3). The opposite, then, also true within the current study, would be seen in couples in which an unattractive (overweight) individual from a lower social caste (Black) was trying to date an attractive (average-weight) individual from a higher social caste (White) (see figure 3).
The interesting difference among interracial couples in which the female is overweight and the male is average-weight warrants further investigation because it could signify that there is a double standard for weight between White and Black cultures. Whether social standards for interracial relationships of the exchange theory better explains the current study’s findings requires further research. Additionally, our results may have been qualified by the fact that the majority of our sample was White. In order to really get an accurate perception of the compatibility of interracial and same race couples, one would hope to have a more even distribution of both White and Black participants. Having a more representative sample would also allow researchers to test how perceptions differ across race. Thus, future researchers may want to more specifically recruit Black participants in order to test hypotheses concerning Black culture.

Furthermore, the current researchers believe that participants may have been distracted by the interracial couples and concentrated only on rating those couples lower rather than looking at each couple exclusively. In order to combat this distraction, future researchers may want to use a between subject design in which participants only rate either same race or interracial couples, but not both. Lastly, modifications to the types of pictures used may warrant consideration since the weight differences between average and overweight individuals could have been made more apparent if perhaps the pictures were from the waist up or simply had more extreme weight differences. Though participants did make discriminations based on weight, if the differences in weight were exaggerated, perhaps clearer discriminations could be made.
Despite complications within the current study, our findings are relevant in that they support a prejudice against overweight individuals in relationships with average-weight individuals. Like those of Sheets and Ajemere (2004), these results suggest that overweight women are at a disadvantage in the dating arena. However, in contrast to Sheets and Ajemere (2004), this study also reports that overweight men may also be at a disadvantage, at least when they are trying to date average-weight women. Unfortunately, dissimilar couples seem to be viewed as doomed for failure by their peers. For example, though the stigma against interracial couples is lessening, it does still exists as seen here. Additionally, individuals of dissimilar weights are viewed as less likely to succeed. It seems to be that the old saying needs a revision; dissimilarity rather than familiarity breeds contempt.
References


Appendix

Photos of Average-weight Individuals
Photos of Overweight Individuals
Author Note

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