African American and Caucasian males' evaluation of racialized female facial averages

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AFRICAN AMERICAN AND CAUCASIAN MALES’ EVALUATION OF RACIALIZED FEMALE FACIAL AVERAGES

by

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Bachelor of Science
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1997

A thesis document submitted in partial fulfillment of the requirements for the

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The answer to what makes a face attractive has been debated for generations and studied in different disciplines. The current study investigated African American and Caucasian males’ evaluation (attraction) to racialized female faces. Faces varied from 100% African American to 100% Caucasian (and included variations that were 25% of either group, or 50% of both groups). Twenty African American and 30 Caucasian men each viewed ten faces, and evaluated them in terms of their appearance and the likelihood that the men would interact with (befriend, date, or marry) the person pictured. Findings revealed that African American men found the 100% African American face attractive (and more positive in other respects), with decreasing evaluations for the 75%, 50% and 25% African American faces. African American men evaluated the 100% Caucasian face more positively than the mixed race faces. White men, in contrast, viewed the 100% African American face as least attractive (and least favorable in other respects), and the Caucasian face most attractive (and favorable). Findings were discussed in terms of the significance for stereotyping, attractiveness, race relations, and future research.
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# TABLE OF CONTENTS

**ABSTRACT** ......................................................................................................................................................... iii

**ACKNOWLEDGEMENTS** ........................................................................................................................................ iv

**LIST OF FIGURES** ................................................................................................................................................ vi

**CHAPTER 1**  INTRODUCTION AND REVIEW OF LITERATURE .......................... 1
   Facial Symmetry and Attractiveness................................................................. 2
   Dimorphic Features ......................................................................................... 4
   Facial Features and Attractiveness................................................................. 5
   Facial Averaging and Attractiveness............................................................. 7
   Issues with Facial Averaging ........................................................................ 9
   Present Research .......................................................................................... 11
   Hypotheses .................................................................................................... 26

**CHAPTER 2**  METHODOLOGY .................................................................................. 29
   Participants .................................................................................................... 29
   Stimulus Materials ......................................................................................... 30
   Ethnic Identity Scales .................................................................................. 33
   Procedures ..................................................................................................... 35

**CHAPTER 3**  RESULTS ......................................................................................... 40
   Facial Evaluations ........................................................................................ 40
   Social Closeness ......................................................................................... 49
   Racial Identification ...................................................................................... 56

**CHAPTER 4**  DISCUSSION ................................................................................... 58
   Limitations .................................................................................................... 67
   Research Directions ...................................................................................... 68

**APPENDICES** ........................................................................................................... 70
   Facial Stimuli ................................................................................................. 70
   Questionnaire ............................................................................................... 71
   Demographic Form ....................................................................................... 79
   Racial Identification Forms and Scoring Sheet ............................................. 82
   IRB Approval Letter ..................................................................................... 89

**REFERENCES** ........................................................................................................ 90

**VITA** ......................................................................................................................... 108
LIST OF FIGURES

Figure 1  Ratings of Skin Tone by Respondent and Photograph Ethnicity ........ 41
Figure 2  Ratings of Attractiveness by Respondent and Photograph Ethnicity .. 43
Figure 3  Ratings of Familiarity by Respondent and Photograph Ethnicity ........ 45
Figure 4  Ratings of Femininity by Respondent and Photograph Ethnicity ........ 46
Figure 5  Ratings of Symmetry by Respondent and Photograph Ethnicity ......... 47
Figure 6  Ratings of Youthfulness by Respondent and Photograph Ethnicity ....... 48
Figure 7  Ratings of Friend Interest by Respondent and Photograph Ethnicity . 50
Figure 8  Ratings of Dating Interest by Respondent and Photograph Ethnicity . 51
Figure 9  Ratings of Marry Interest by Respondent and Photograph Ethnicity .. 53
Figure 10 Ratings of Overall Face by Respondent and Photograph Ethnicity .... 54
Figure 11 Ratings of Social Space by Respondent and Photograph Ethnicity ... 55
CHAPTER 1
INTRODUCTION AND REVIEW OF LITERATURE

What makes a face attractive? This question had been debated and studied by various disciplines, including multicultural and women studies, history, philosophy, science, psychology, anthropology and literature (Eagly, Ashmore, & Makhijani, 1991; Langlois, Kalakanis, & Rubenstein, 2000).

Attractiveness has been said to be in accordance with an individual’s personal preference (Langlois et al., 2000). For instance, “Don’t judge a book by its cover” and “Beauty is in the eye of the beholder”, may have been clichés when attempting to provide a moral compass in child rearing or in regard to cultural sensitivity and training. However, empirical research has not supported these morality codes (Fink & Penton-Voak, 2002; Grammer & Thornhill, 1994; Jones, 1995; Langlois & Roggman, 1990; Langlois, Roggman, & Musselman, 1994; Rhodes & Tremewan, 1996; Valentine, Darling, & Donnelly, 2004; Wade 2000, 2003).

The growing body of attractiveness research posits that there is a standard for beauty which transcends gender, age, and ethnicity (Cunningham et al., 1995; Grammer & Thornhill, 1994; Langlois & Roggman, 1990; Langlois et al., 1994). Despite society’s past attempts to derail judgment centered on an individual’s level of attraction--e.g. hair color, style of dress, skin tone, and other appearance based factors--humans tend to judge levels of intelligence, social status, and other characteristics based on the appearance of a person (Cash 1981; Dion, Berscheid, & Walster, 1972; Langlois et al., 2000).
Many scientists agree that there have been universal standards for judging the attractiveness of a face. Conversely, a number of attractiveness theories identify specific features that are important to facial attractiveness, such as symmetry, the dimorphic features of the face, youthfulness, and facial averageness (Cunningham, et al., 1995; Fink & Penton-Voak, 2002; Grammer & Thornhill, 1994; Jones, 1995; Langlois & Roggman, 1990; Langlois et al., 1994; Rhodes & Tremewan, 1996; Valentine et al., 2004; Wade, 2000, 2003).

Facial Symmetry and Attractiveness

A number of scholars have found that individuals are attracted to a perfectly symmetrical face (Baudouin & Tiberghien, 2004; Gangestad, Thornhill, & Yeo, 1994; Grammer & Thornhill, 1994; Little & Perrett, 2002; Perrett, Burt, Penton-Voak, Lee, Rowland, & Edwards 1999; Rhodes, Carey, & Byatt, 1998; Rhodes, Sminch, & Byatt, 1999; Thornhill & Gangestad, 1993). For example, Perrett, et al. (1999) found that symmetry was important in regard to both female and male facial attraction. In these studies, the researchers created perfectly symmetrical faces by averaging the height and lateral positions of digitally predefined specific points on the faces in the photographs. Participants were shown original and symmetrical faces and required to make forced choices in regard to the facial attractiveness of one face over the other. The results indicated that participants preferred the more symmetrical face over the original face.

Not all evidence supports the facial symmetry hypothesis (Gangestad et al., 1994; Kowner, 1996). Surprisingly, asymmetrical faces have been counted as
Attractive. Furthermore, perfectly symmetrical faces have been digitally created (Gangestad et al., 1994; Perrett, et al., 1999; Kowner, 1996). When digitally altered faces were compared to naturally asymmetrical faces, minimal differences in attractiveness ratings were reported between the face types (Kowner, 1994).

Whereas symmetrical faces were rated as being attractive, when the symmetry effect was removed, faces were still viewed as attractive (Rhodes et al., 1999). Rhodes and colleagues (1999) created male and female average faces by setting predetermined points on specific facial features and the face as a whole. The researchers looked at various levels of averageness, symmetry, and facial expression (neutral vs. pleasant) that contributed as attraction cues. They found that averageness and expression were the only two variables that determined attraction among both males and females.

Scientists have claimed that judgment of a face as “healthy” may be a mediator between attraction and symmetry (Jones, Little, & Penton-Voak, 2001). Jones et al. (2001) required participants to view full color photos which were standardized for attractiveness cues (i.e., facial hair, jewelry, hair, etc.). Using a facial metric procedure, they estimated asymmetry of the photographs. Then participants rated the attractiveness and health of the faces. The results were consistent with previous research and indicated a strong relationship between attractiveness and symmetry (e.g., Gangestad et al., 1994; Thornhill & Gangestad, 1993). However, the relationship between symmetrical faces and attraction was nonexistent when health was factored out.
Dimorphic Features

Biological cues are an important component to attractiveness. In fact, some researchers contend that hormones are vital to facial attraction between males and females (Fink & Penton-Voak, 2002; Penton-Voak & Chen, 2004; Penton-Voak, Little, & Jones, 2003; Perrett, Lee, & Penton-Voak, 1998; Thornhill & Gangestad, 2003; Wade, Dyckman, & Cooper, 2004). Hormones cause an individual’s face to develop as either more masculine or feminine (for males and females, respectively). In turn, these biological cues signal to males and females the health of a potential partner (Buss & Shackelford, 2008; Fink & Penton-Voak, 2002). In reference to mate selection, a healthy individual is important for the successful continuation of a species genetic sequence (Buss & Shackelford, 2008).

When female faces are rated for femininity there is a high correlation between attractiveness and how feminine the woman’s face appears (Rhodes, Jeffery, & Watson, 2003). In contrast, masculine faces correlate moderately with attraction, yet a masculine appearance seemingly promotes strength, intelligence, and health. In addition, feminized male faces are perceived positively in relation to some social interactions which causes others to view them as more honest, gentle, and youthful (Cunningham et al., 1990; Friedman & Zebrowitz, 1992; Gangestad & Thornhill, 2003; Grammer & Thornhill, 1994; Perrett et al., 1998; Zebrowitz & Montepare, 1992). Both sets of facial characteristics are vital, however, it may have been more important that a male’s face looked more masculine than feminine in order to attract a potential partner. As noted, the
research supported the importance of sexual dimorphic cues to facial attractiveness.

Facial Features and Attractiveness

A number of researchers have attempted to relate facial features to overall facial attractiveness (Cunningham et al., 1995; Fink & Penton-Voak, 2002; Grammer & Thornhill, 1994; Zebrowitz & Montepare, 1992). Theorists have contended that a mix of oversized facial characteristics--such as enlarged eyes and lips, thin eyebrows and more mature features--are considered attractive (Cunningham et al., 1995; Fink & Penton-Voak, 2002; Grammer & Thornhill, 1994; Zebrowitz & Montepare, 1992). For example, Cunningham et al. (1995) measured the homogeneity of attractiveness ratings for different ethnic groups. The groups consisted of both male and female participants who were of African, Asian, Caucasian, and Latino descent. The participants rated female faces from the above mentioned ethnic groups with the exception of African American males who did not rate the faces of Caucasian females (the authors did not mention why African American men were not raters for the Caucasian female stimuli). Cross culturally, the researchers found that there was homogeneity among the evaluation of facial features. Specifically, participants rated the faces which possessed large eyes, small noses, and high cheekbones as most attractive. Moreover, agreement among the ethnic groups was high, with correlations averaging r=.95 across all groups.

The concept of oversized features was labeled as babyfacedness (Cunningham et al., 1995; Zebrowitz & Montepare, 1992).
According to this theory, oversized features seemed to be especially attractive to males in relation to female faces (Cunningham et al., 1995; Jones, 1995). Also, facial feature theorists posited that youthfulness, perhaps appearing as smooth blemish-free skin, as well as a young looking face, may have been important when an individual made a selection in regard to facial attractiveness (Alley & Cunningham, 1991; Cunningham et al., 1995; Fink & Penton-Voak, 2002; Grammer & Thornhill, 1994; Jones, 1995; Zebrowitz & Montepare, 1992).

Seemingly, the idea of youthfulness may have been gender specific. Since male faces which appeared more mature were characterized as strong and fearless, an individual whose face was less youthful may have been judged as more attractive. In contrast, there appeared to be a discrepancy when female faces were aged, mate quality decreased with the maturity of a woman’s face (Cunningham et al., 1995; Zebrowitz & Montepare, 1992).

Although there was some validity to the facial feature theory, more than facial features and youthfulness has constituted an attractive face (Langlois, et al. 1994; Rhodes et. al., 1999). More specifically, when faces were rated for babyfacedness (i.e., large eyes, thin eyebrows, a small chin), the faces had been rated as weaker and as less intelligent than those with more mature features perhaps generating less sexual and/or reproductive appeal to a potential partner (Berry & McArthur, 1985; Keating, 1985; McArthur & Apatow, 1984; Zebrowitz, McArthur, & Montepare, 1989; Zebrowitz & Montepare, 1992). When contemplating the aforementioned concepts, it is difficult to conclude that babyfacedness or facial features are what make a face attractive.
Facial Averaging and Attractiveness

The idea of averageness dates back to the late 1800’s when, A. L. Austin blended two photographs of faces and noticed that the two pictures created a more appealing single photograph (Galton, 1878). More recently, facial averaging was a theory hypothesized and popularized by Judith Langlois & Lori Roggman (1990). The theory postulated that there was a biological as well as cognitive need to deduct from a variety of faces generating a distribution (of faces) in which individuals’ processed as an (single) averaged face (Langlois & Roggman, 1990). For example, individuals viewed hundreds of single faces. Cognitively, persons added up a number of different faces and then averaged them resulting in one face that was counted as attractive. Moreover, this averaged face established a prototype for what individuals found attractive (Langlois & Roggman, 1990). So, the closer that an individual resembled another’s average or prototype, the more likely that person may have been chosen as a date or mate. Additionally, an averaged face may have been considered attractive because the composite exuded health, strength, and intelligence, many characteristics that were desired in a future partner (Baudouin & Tiberghien, 2004; Buss, 1985; Buss & Dedden, 1990; Buss & Schmitt, 1993; Gangestad & Buss, 1993; Langlois & Roggman, 1990; Sadalla, Kenrick, & Vershure, 1987; Thornhill & Gangestad, 1993; Wade, 2000, 2003).

Averageness has been shown to be attractive in a number of different studies (Langlois & Roggman, 1990; Langlois et al., 1994; Perrett, May, & Yoshikawa, 1994; Rhodes & Tremewan, 1996; Rhodes et al., 1999; Valentine et al., 2004).
Valentine et al. (2004) showed male and female undergraduate students profile and full face views of averaged female faces. The experimenters displayed averages that were 25 and 50 percent closer to, as well as further away from, the original untouched photographs. The results indicated that the faces which were manipulated to appear increasingly close to the average were considered most attractive. These results were true for both the profile and the face forward views.

Interestingly, averageness was attractive when photos of inanimate objects and animals had been manipulated as well as pictures of profile views and line drawings of faces (Halberstadt & Rhodes, 2000, 2003; Rhodes & Tremewan, 1996; Valentine et al., 2004). Using items other than photographs of full face frontal views provided strong support for the averageness theory. Furthermore, there was both infant and multi/cross cultural support for attractiveness to averaged faces (Langlois et al., 2000; Perrett et al., 1994; Rubenstein, 2000; Rhodes, Harwood, & Yoshikawa, 2002; Rhodes, Zebrowitz, & Clark, 2001; Rubenstein, Langlois, & Roggman, 2002; Rubenstein, Kalakanis, & Langlois, 1999).

Why do individuals find the composites attractive? Both biological and cognitive answers have been offered (Langlois & Roggman, 1990; Rhodes et al., 2001; Rhodes, Yoshikawa, & Clark, 2001; Rhodes et al., 2002; Valentine et al., 2004). The biological answer proposed that attraction preferences may have been shaped by human evolution which created an attractiveness instinct (Rhodes et al., 2001). Consequently, the biological base affected important aspects of mate
quality such as developmental stability, perhaps having helped to establish a reproductive advantage (Thornhill & Gangestad, 1993).

In normalizing or stabilizing selection, evolutionary pressures operated in favor of the average of the population and against the extremes of the population (e.g., Bumpas, 1899; Dobzhansky, 1970; Schmalhausen, 1949; Symons, 1979). Thus, the average values of many anatomical features were preferred in the population because individuals close to the mean of the population were less likely to carry harmful genetic mutations (Symons, 1979).

The cognitive answer proposed that individuals categorized faces creating a representation for a face, also known as an average. More specifically, individuals create averages from the hundreds of faces viewed over one’s lifespan making it easier for people to identify faces which are dissimilar to their prototypical face. Moreover, the more distinct a face appears, the less likely that the face fits with an individual’s representation of a face. This makes it difficult to cognitively process the face and causes the face to appear less attractive than our averaged prototype (de Haan, Johnson, & Maurer, 2001; Langlois & Roggman, 1990; Valentine, 1991; Valentine & Ferrara, 1991; Valentine et al., 2004).

Issues with Facial Averaging

Perhaps people’s attraction to averaged faces is a consequence of the average appearing as a more symmetrical face. However, there is empirical evidence that averageness is viewed attractive whether or not symmetry is manipulated (Baudouin & Tiberghien, 2004; Rhodes et al., 1999). Also, when
profile photos are averaged, making symmetry undetectable, the averaged profile is viewed as more attractive than the composite(s) demonstrating that averageness and symmetry are independent and that averageness is attractive (Valentine et al., 2004). So, it does not appear that symmetry is the sole reason that faces are considered as attractive nor that averageness is attractive simply because it appears more symmetrical (Langlois et al., 1994; Rhodes et al., 1999; Valentine et al., 2004).

Perhaps averaged faces appear more youthful or blemish-free. However, when line drawings of faces have been used in facial attractiveness studies, individuals choose the averaged line drawings over the nonaveraged caricatures. Specifically, with line drawings youthfulness was not a component yet averageness was still considered more attractive (Rhodes & Tremewan, 1996).

In addition, research has demonstrated that when youthfulness and blemish-free skin are removed as variables individuals maintain that averageness is attractive (Langlois et al., 1994; Rhodes et al., 1999).

Finally, there have been claims that averaged faces appear familiar and therefore are rated as more attractive (Alley & Cunningham, 1991; Langlois & Roggman, 1990; Langlois et al., 1994). Although this reasoning was a major issue with the averageness theory it was not necessarily a flaw. Langlois and colleagues had participants assess male and female composites and individual faces for their familiarity. Both the male and female averaged faces were rated as more familiar than individual faces. Furthermore, familiarity and attractiveness were highly correlated actually supporting the idea that average faces were perceived as
attractive (Langlois et al., 1994). Scientists maintain that familiar faces are counted as attractive because they strongly fit within our schema of typical faces. This concept points back to the cognitive explanation of why averageness is attractiveness.

In sum, the averageness theory provides a more parsimonious answer to what was conceived as attractive. The averaged face was a representation of faces making it easy to process and free from “bad genes.” Also, the average face takes into account all aspects of the face, i.e. symmetry, facial features, familiarity, etc. resulting in an attractive face (Langlois & Roggman, 1990; Rhodes et al., 2002). Specifically, an averaged face represents a good example for classes of faces (Langlois & Roggman, 1990; Langlois et al., 1994).

Present Research

Although the research among the averageness literature is quite vast there appears to be a limited number of studies which included African Americans. To date, African American faces have not been used to create averages nor were African Americans noted as judges of attractiveness with averaged photographs. More explicitly, leading scholars conducted the majority of studies with persons of Chinese, Japanese, and/or European ancestry (Byatt & Rhodes, 1998; Jaquet, Rhodes, & Hayward, 2007; Langlois & Roggman, 1990; Langlois et al., 1994; Perrett, May, & Yoshikawa, 1994; Potter & Corneille, 2007; Rhodes, et al., 1991; Rhodes et al., 1999; Rhodes et al., 2005; Rhodes & Tremewan, 1996; Valentine et al., 2004). However, different from the more current literature, the flagship study directed by Langlois and Roggman (1990) specified that faces used to
create the averages were of persons from both European and Latino heritage. Furthermore, the raters of the averages (300 male and female psychology undergraduate students) were categorized as predominately Caucasian but the researchers did not distinctively identify the ethnic backgrounds of the judges. Additionally, a research design by authors Valentine, Darling, and Donnelly (1998) only employed Caucasian females for their composite photos. In regard to the participants, there was no mention of their ethnic makeup therefore; African Americans may have been judges. However, the data were collected in London, England so the chance that African Americans were a part of the participant pool (48 student participants) was very unlikely. Recently, persons of African heritage were investigated in studies exploring averageness. A study by Potter and Corneille (2008) used computerized African male faces. Conversely, the raters of the stimuli were of Caucasian descent. Although the faces generated were of African origin, the study was conducted in Belgium and therefore, classified as African European not African American. Nonetheless, the researchers simply labeled the ethnicity of the pictures as African. In 2007, Apicella et al., examined averageness among who they qualified as Western people and the Hadza people of Northern Tanzania. Although the authors did not specify the ethnicities of the Western judges it was speculated that they were representative of the stimuli faces (which were European). However, African Americans may have been members of the subject pool of the 300 Western judges. The authors were collaborating from both American and European
Universities and with the number of Western participants utilized in the study; African Americans could have been included as evaluators.

Consequently, since the averaging literature has seemingly ignored African Americans, the current research explored if an averaged face containing all African American female faces was considered attractive by African American and Caucasian men. The research included averaged faces which were all African American, mixed with both African American and Caucasian faces, as well as composites which were all of Caucasian faces. In addition, the study focused on a vast number of attractiveness and social characteristics and traits that one may have found important when defining facial attractiveness. The specific attractiveness questions had the raters evaluate the skin tone, youthful appearance, femininity, familiarity, and symmetry of the face. As noted earlier, there have been studies that included the aforementioned attractiveness measures (Cunningham et al., 1995; Fink & Penton-Voak, 2002; Grammer & Thornhill, 1994; Jones, 1995; Langlois & Roggman, 1990; Langlois et al., 1994; Rhodes & Tremewan, 1996; Valentine et al., 2004; Wade, 2000, 2003). In order to further validate previous research, the current proposal also investigated these constructs. It was postulated that since this was the first study that included raters and composites, both of African American heritage, it was important to collect the attractiveness information.

Additionally, due to the exploratory nature of this research, social and personality qualities were measured as well. It was necessary to have raters judge the social and personality attributes of the composite because it has been well
documented that negative stereotypes and stigmas have plagued Black women for generations; if the African American female facial composite was considered attractive the negative references may have been reduced (Crivens, 2000; Emerson, Stephens, & Phillips, 2002; Rich, Woods, Goodman, Emans, & DuRant, 1998; Stephens & Few, 2007; Ward, Hansbrough, & Walker, 2005; Washington & Shaver, 1997). Also, since media influences have sensationalized and objectified African American women as video vixens, caretakers, and needy single mothers, it was important that social constructs be investigated in order to help solidify if the influx of negative social images were a factor in the mate/date ascriptions of African American women to African American and Caucasian men (Crivens, 2000; Emerson, Stephens, & Phillips, 2002; Rich, Woods, Goodman, Emans, & DuRant, 1998; Stephens & Few, 2007; Ward, Hansbrough, & Walker, 2005; Washington & Shaver, 1997).

More specifically, the halo effect, also considered as the beauty is good stereotype, and/or the attractiveness bias, may have influenced the men’s decision with the African American female morph. The halo effect contends that if the attractiveness level of an individual was low, negative social characteristics may be assigned to the individual as well (Cash & Duncan, 1984; Kaplan, 1978; Larose & Standing, 1998; Lucker, Beane, & Helmreich, 1981; Zebrowitz, Voinescu, & Collins, 1996). The first study to look at the halo effect with African Americans was conducted at a Historically Black College/University in 1984 (Cash & Duncan, 1984). First, in order to verify levels of attractiveness, male and female judges looked at yearbook pictures of African American male and
female students and categorized the photos as low, average, or high (facial) attractiveness. Next, depending upon interrater agreement, two photos from each attractiveness group for both sexes were chosen as stimuli photos. The photos were then matched, with scales on physical attraction, social desirability, self-centeredness, and sex type [qualified as how masculine or feminine the individual appeared in the photo(s)].

Cash and Duncan’s (1984) participants then received separate envelopes for each stimulus photo. Once they completed the judgment of one photograph they were provided with another picture until they evaluated all twelve pictures. The results indicated that male participants viewed both the highly attractive male and female stimuli pictures as socially desirable. The female participants were more exact in their ratings because they rated highly attractive faces as more attractive than the average photograph and the average pictures as more attractive than the low attractive faces. Moreover, the women’s social desirability ratings followed the same pattern as their attractiveness ratings. With the self-centeredness variable, male participants attributed physical attractiveness to be self-centered. However, female participants judged both highly attractive and unattractive persons as vain and arrogant. The judges’ evaluation of femininity increased, the more attractive the female faces appeared. The results were similar for the male stimuli faces although the authors noted that differences in masculinity ratings between the three groups were not significant (Cash & Duncan, 1984). Although this was the first study involving the beauty is good stereotype and African Americans and one of only five that the current author
was able to locate (see T. Joel Wade’s research with the halo effect, African Americans, and weight, M. J. Intons-Peterson’s study of the cultural halo effect with African Americans and Caucasian men and women, and Leslie A. Zebrowitz’s research on babyfacedness and the halo effect with three different ethnic groups, Caucasians, Koreans, and African Americans), the results were consistent with the attractiveness biases demonstrated by other cultural groups (Cash, 1981; Cash & Duncan, 1984; Dion et al., 1972; Kaplan, 1978; Langlois et al., 2000; Larose & Standing, 1998; Lucker et al., 1981; Zebrowitz, Voinescu, & Collins, 1996).

Zebrowitz and colleagues investigated babyfacedness and facial attractiveness in relation to judgments of homogeneity of interracial and intraracial faces and the halo effect. The facial stimuli used were of individuals of European and African American ancestry as well as persons of Korean heritage (Zebrowitz, Montepare, & Lee, 1993). The participants were of the same ethnic backgrounds as the persons represented in the facial stimuli. The study was a between subjects design where each participant rated only one ethnic groups’ photo except for African American participants who evaluated the African American stimuli pictures and also rated the Korean facial stimuli (Zebrowitz et al., 1993). The faces were evaluated using trait scales which indicated how cold, weak, dishonest, submissive, and naïve the faces appeared. The participants also evaluated the maturity and attractiveness levels of the faces. The results showed high intragroup agreement regarding their judgment of other ethnic groups on all of the attractiveness and socially desirable traits with one
exception; African Americans’ attractiveness ratings of Caucasian faces did not show high reliability. Furthermore, intergroup attractiveness ratings showed high reliability. With the attractiveness variable there were statistical differences between and across ethnic groups with own group preferences being prominent for all three ethnicities (Zebrowitz et al., 1993). Also, there were between group differences on the attractiveness and the babyfacedness measures, intragroup preferences were again demonstrated for each of the ethnic groups. For social desirability, the halo effect was found despite the ethnic background of the judge or the photo, with a few exceptions. Specifically, regarding the social trait “warm” African American participants only demonstrated the halo effect for African Americans and Korean participants toward Caucasian participants. This study provided further cross cultural support for the beauty is good stereotype as well as information on ethnocentric research (Zebrowitz et al., 1993).

Due to the information on the halo effect/beauty is good stereotype, as displayed in other studies, social status may act as a moderator for facial attractiveness with the participants in the current study (Cash & Duncan, 1984; Emerson et al., 2002; Rich et al., 1998; Stephens & Few, 2007; Ward et al., 2005; Washington & Shaver, 1997; Zebrowitz et al., 1993).

Did African American men find the African American female average attractive? There were a number of possible answers to this question which could have been supported via the matching hypothesis and the similarity effect as well as ethnocentrism and ingroup literature. The matching hypothesis implied that individuals tended to be attracted to those who were similar or match
them in attractiveness, educational level, income, religion, and ethnicity (Kalmijn, 1998; Knox, Zusman, & Nieves, 1997; Parmer, 1998; Walster, Aronson, & Abrahams, 1966). There has been a considerable amount of research to support this theory. Specifically, Parmer (1998) investigated African American college students in regard to important characteristics in a potential mate. The participants rated social, personality, and physical character traits specifying their importance in regard to a partner. It was found that college students preferred partners who were similar to them in social status, educational background, and religious and political affiliation (1998). Extrapolating from this research, it was expected that African American males would find faces with more African American features more similar and thus more attractive.

In a classic study conducted by Jones and Diener (1976), college students demonstrated a preference for their own ethnic group, e.g. African Americans for African Americans and Caucasians for Caucasians. Social quality variables—intelligence, morality, adjustment, knowledge of current events, liking—affected the personal feelings about the person and the desire to work with that person (and heterosexual attraction defined as the desire to date or marry the individual). The students were provided with a confederate employment application which claimed to be from an African American, Asian American, or Caucasian American applicant for the University where the students attended. The participants were told that they could be honest about their judgments of the applicants because the individuals had already been hired and therefore their assessments would not influence the applicants’ future at the College. Each
application was paired with one of ten photographs from one of the aforementioned ethnic groups. The application also disclosed surnames that were congruent with the ethnicity of the photo. The other demographic/scholarly/employment information was constant for each application. The results indicated that there was a statistically significant applicant ethnicity by participant ethnicity interaction on the summed scores for social qualities. Concerning the liking variable there was a significant ethnicity of judge ethnicity of applicant interaction. Finally, in regard to heterosexual attraction, the summed scores of all three constructs (dating, marriage, and sexual/physical attraction), showed a strong intragroup preference (Jones & Diener, 1976).

Another study which involved African Americans, Asian Americans, Caucasian Americans, and Latino Americans as judges, evaluated the similarity, attractiveness, status, social network, ethnic identity, and partner preference for the ingroups and outgroups of the ethnicities aforementioned. The participants were provided with a questionnaire which asked them about their stereotypical perception for their own group as well as the other three outgroups. The researchers did not provide the participants with photographs but rather proposed questions such as, “What would your friends think if you dated someone who is African American, Asian American, etc. for each in/outgroup”. The results showed that each ingroup found their members as the most similar to themselves on the similarity ratings. In regard to attractiveness, each ingroup found members of their own group as the most attractive with the exception of
Asian American participants, who found Caucasian American individuals as more attractive than members of their own group. For the social status measure, which investigated earning potential and educational levels, each ingroup reported that their members had the greatest amount of success or potential success. The social networking variable generated similar results with each ingroup claiming that friends and family would have been the most supportive of ingroup relationships while disapproving of interethnic relationships. With ethnic identification, each group member reported that they identified the most with members of their same group. Finally, the partnership preference showed that each ingroup had a greater preference for their own members versus those who were members of the outgroup (Liu, Campbell, & Condie, 1995). Although each group preferred their own members on all but one of the constructs, overall, Caucasian Americans received the highest mean ratings for each measure. In contrast, African Americans received some of the lowest ratings with scores on social network and partner preferences ranking the least overall for the group. Another possible answer could have been that African American males did not prefer the African American facial average because African American men adopted the belief that light skin is beautiful (Cunningham et al., 1995; Crivens, 2000; Hill, 2002; Maddox & Chase, 2004; Maddox & Gray, 2002; Parmer, Arnold, & Natt, 2004). Parmer and colleagues (2004) examined physical attractiveness and its relation to internalized oppression with African Americans. The researchers gathered data in regard to the participants’ choices on facial features, skin tone, hair type, and body size. The results signified that except for
body type, African American participants preferred more traditional Caucasian appearance based cues (i.e., facial features, light skin, and straight hair).

The mass media have promoted a standard for American beauty that is quite different from the body types, facial features, skin tone, and hair type associated with many African American women (Boone, 1997; Engeln-Maddox, 2006; Grace, 2002; Labre & Walsh-Childers, 2003; Parmer, et al., 2004; Sanders, 1997; Walcott, Pratt, Patel, 2003). Since media influences have displayed negative character traits for African American women (in addition to an opposing physical representation), Black males may not have found the 100% African American composite as attractive as the mixed face composites or the 100% Caucasian American composite. However, the African American males may have experienced an obligation to rate the African American female face as attractive because they may have considered a positive rating as more socially acceptable or the correct choice (Emerson, Kimbro, & Yancey, 2002). If they did not rate the 100% African American face as most attractive, they may have expressed negative feelings about important female figures in their lives i.e., mother, grandmother, spouse, girlfriend, sister, and others, which again would counteract their social acceptance among women with whom the males were intrarelated.

Thirdly, it was possible that African American males would have preferred facial averages consisting of both African and Caucasian American females. This seemed like the most probable answer because African American males may have had a vast amount of exposure to Caucasian females via the media,
their educational experiences, their career fields, and by way of the general public i.e. simply operating and surviving in the world. In addition, they may have been exposed to African American females via close social and family interactions and relationships. Therefore, since the cognitive prototype theory contends that individuals categorized faces from the hundreds of faces creating a representation of a face, the most holistic answer to what type of face African American males found attractive was the bi-ethnic/mixed face morph.

Finally, African consciousness (or ethnic identity) may influence ratings of the African American composite. The identity theory posits that the more one is entwined into his/her culture, the more one associates with and supports the traditions, customs, and practices of that cultural group (Chambers, Clark, Dantzler, & Baldwin, 1994; Cross, 1971, 1991; Cross, Parham & Helms, 1981; Harvey, LaBeach, Pridgen, & Gocial, 2005; Helms, 1990, 2004; Klonoff & Landrine, 2000; Landrine & Klonoff, 1994; Parham, & Helms, 1991; Sellers, Rowley, Chavous, Shelton, & Smith, 1998).

Ethnic identity has been explored with a number of psychosocial, physical, health, academic and psychological factors e.g., self-esteem, academic success and college adaptation, smoking and alcohol consumption, fruit and vegetable consumption, and choice of clinician/counselor (Anglin & Wade, 2009; Arroyo & Zigler, 1995; Klonoff & Landrine, 1999, 2006; Reid, Brown, Peterson, & Webb, 2008; Resnicow et al., 2009; Snowden & Hines, 2009; Speight et al., 1996; Townes, Chavez-Korell, & Cunningham, 2009; Williams, 2004). Seemingly, the association with ethnic identity could have been generalized to social situations
and choices and, as noted, has been researched with a number of different topics. Accordingly, attractiveness may be important in relation to one’s ethnic consciousness as well. However, the research in regard to African American attraction and ethnic identity, racial identity, and/or acculturation has been quite limited. The majority of attraction and ethnic identity studies, albeit limited in number, has conducted as dissertation topics, focused on Black women’s self-assessment of their body type, eating disorders, or related to teenage girls and their self-assessment. Moreover, the researchers have not further explored the findings, so their dissertations have been some of the only published studies on the subject matter (Arora, 2003; Dessources, 2008; Lester, 1997; Kohlmaier, 2004; Powell, 2002; Spadafore, 2008; Thomas, 2006).

Although there is a substantial divide in the literature regarding attraction and ethnic identity, the current author was able to find some information to support the hypothesis that ethnic identity may have been important when one was judging facial attraction (Chambers et al., 1994). The relationship between skin tone preference, self esteem, and ethnic identity was examined with African American male and female college students. The participants were asked to judge social qualities, attractiveness levels, and their own skin tone. The participants viewed 18 photos of six African American women with light, medium, and dark skin tone. The photos were digitally altered so that each woman was shown in all three skin tones. The students also completed questionnaires regarding their self-esteem and ethnic identity. The results indicated that the more one identified with their ethnic group, the more attracted they were to the
darker skin tones. Specifically, attraction to the medium skin toned photos was highly correlated with positive ratings on the ethnic identity scale (Crivens, 2000). In another study, African American students at both a Predominantly White University and Predominantly Black University completed measures on skin tone, skin tone importance, racial self esteem, peer group acceptance, and ethnic identification. Data on skin tone were collected via the Skin-Tone Picture Scale. Participants were asked to judge their skin tone against the photos of African Americans displaying an array of skin colors ranging from very light to very dark. To test ethnic identity, students completed the Multigroup Ethnic Identity Measure which included Likert styled questions such as, “I have a strong sense of belonging to my ethnic group.” The other constructs of skin tone importance, racial self esteem, and peer group acceptance were also assessed with Likert type surveys. The analyses detected no significant difference between the mean scores of skin tone for the students on either campus with both samples rating their skin tones as medium brown. Skin tone was found to be more important at the majority Black University. At both universities, those who rated themselves as darker skinned also reported higher levels of ethnic identity (true also across gender). However, there was some evidence that a strong ethnic identity was more important at the Predominantly White School (Harvey et al., 2005). Although the current study was not a replication of the research completed by Harvey and his colleagues (2005), in regard to skin tone and ethnic identity, it did provide support the current author’s hypotheses. Specifically, since the studies verified that there are strong correlations between skin tone preferences,
attractiveness cue, and ethnic identity, the current study expected to find similar outcomes on the attraction measure as well as the manipulation checks of skin tone and the other attractiveness variables.

The current author attempted to provide a consistent reference to individuals’ cultural and physical characteristics as “ethnic/ethnicity” in this paper. Although quite limited, the term “race” was used interchangeably, primarily for clarity, since the idiom had been more frequently employed in psychology and other disciplines i.e. racial identification, biracial, etc. (Fairchild, Yee, Wyatt, & Weizmann, 1995; Hicks, 2004; Landrine & Klonoff, 1994; Yee, Fairchild, Weizmann, & Wyatt, 1993). However, the current author was interested in supporting the more current trends and vocabulary among the multicultural literature which distinguishes between the constructs of race and ethnicity. Multicultural researchers encourage the use of the word ethnicity due to the limited and sometimes derogatory associations with the term “race” [claims that minority groups/races are intellectually inept or inferior based on genetics] (see Yee et al., 1993 and Landrine & Klonoff, 1994 for an extensive synopsis).

To further explain, race had been qualified as the biological/genetic make-up of a person signified as particular facial structures, hair types, and other visual cues. The concept of ethnicity encompasses the physical, spiritual, and mental characteristics of an individual with a focus on the cultural ideals of a particular group e.g., shared history, language, religious practices, artistic interpretation, superstitions/habits, physical traits, and more (Fairchild et al., 1995; Hicks, 2004; Landrine & Klonoff, 1994; Yee et al., 1993). For the purposes of this study it may
be important to use the term race when describing the physical attributes of the photographs. However, due to the long term abuse and improper usage of race in the psychological literature the author found it appropriate to use the term ethnicity to address the physical and cultural ideals discussed, evaluated, and analyzed in the paper in order to help better carry on the correct application of the term and concept of ethnicity.

Hypotheses

Hypothesis 1: It was expected that the Biethnic composite was very identifiable with the African American males' prototypical face and therefore rated as the most attractive face by African American men (Apicella, Little, & Marlowe, 2007; de Haan, Johnson, & Maurer, 2001; Langlois & Roggman, 1990; Potter & Corneille, 2008; Valentine, 1991; Valentine & Ferrara, 1991; Valentine et al., 2004). It was assumed that African American males had viewed hundreds of African American and Caucasian faces over their lifespan. Therefore, it was predicted that the 75% African American and 25% Caucasian photo would best fit within their face representation, making it easy to process the face cognitively and causing it to appear highly attractive.

Hypothesis 2: In contrast, it was hypothesized that Caucasian males would consider the 100% Caucasian female composite as the most attractive face. It was theorized that the men may have had minimal experiences with African American females which would result in lower attractiveness rating for the majority African American facial composites. However, since they have had a healthy amount of exposure to Caucasian female faces, inherently, it was
expected that they had produced a prototype which in turn would generate high attractiveness rating for the Caucasian facial composite (Apicella et al., 2007; Potter & Corneille, 2008).

Hypothesis 3: It was hypothesized that greater ethnic identification would be associated with more favorable ratings for same ethnic group faces with the African American participants. More specifically, it was proposed that the levels of acculturation or racial/ethnic identification would be a strong predictor concerning their ratings of attractiveness of the African American composite. This hypothesis had little support in the literature; however, comparative studies involving skin tone, self esteem, academic achievement, physical and mental health, and marital/dating status had shown to be more positive when persons were highly committed to their ethnic identification (Anglin & Wade, 2009; Arroyo & Zigler, 1995; Crivens, 2000; Harvey et al., 2005; Klonoff & Landrine, 1999; Klonoff & Landrine, 2006; Resnicow et al., 2009; Speight et al., 1996; Townes et al., 2009; Webb, 2008; Williams, 2004). Moreover, research has supported that when one’s ethnic identity is a direct reflection of their cultural group (i.e. committed to the rituals and traditions), they are more inclined to associate with the elements surrounding their ethnicity.

Past research has shown a number of variables correlated with attractiveness, including youthful, symmetrical, familiar, and feminine (all facial characteristics consistent with the attraction and averageness literature, see Alley & Cunningham, 1991; Langlois & Roggman, 1990; Langlois et al. 1994; Rhodes et al., 1999; Valentine et al., 2004). With the newer measure of skin
tone being introduced, the ethnic affiliation of the participant may be important in relation to the composites skin tone. If the African American participants believe that *Black is beautiful*, African American female photos may be rated as darker and attractive in order to stay congruent with their ethnic identity. However, she also could be judged as a darker skin tone and rated as unattractive if the participants’ ethnic affiliation is low. Although these two considerations appear to be the same, it was postulated that the composites with darker skin tones would be rated as attractive by those who are highly associated with their ethnic group. Opposing attraction ratings were expected for participants who were not affiliated with their ingroup.

Hypothesis 4: For the Caucasian participants, it was expected that if scores on the RISSA indicated that they are well accepting of multicultural appearances, they would be more attracted to darker skin tones. However, if their scores reflect a familiarity to European standards, it was posited that their skin tone and attraction ratings would echo a preference for their same ethnicity.
Twenty African American and 30 Caucasian males participated in the study. The mean ages (and standard deviations) for the men were 24.26 (8.88) and 22.58 (9.09), for the African American and Caucasian men, respectively.

Research participants were recruited through the University of Nevada, Las Vegas (UNLV) Psychology department database as well as through university organizations i.e. the Black Student Association, the Student Government Association, the Black Graduate Student Association, the Graduate and Professional Student Association, and Historically Black and White fraternal groups. Also, recruiting occurred through local community organizations such as churches, 100 Black Men of America, 100 Black Committed Men, the National Association for the Advancement of Colored People, the Urban League, and the Urban and Las Vegas Chambers of Commerce. Six African American participants were recruited from the community (although two were also members of the University’s student body) and four Caucasian men were recruits from outside of the University.

The researcher contacted the leadership of some of the above mentioned groups and requested 5 minutes to present the research opportunity to its Board of Directors and/or membership body. Individuals had the choice of providing their contact information so that they could be scheduled for an appointment and/or
sign up for the experiment via the Psychology department participant base if they were enrolled in Psychology classes at UNLV.

Stimulus Materials

The current research project proposed using stimuli faces which consisted of African American and Caucasian female, full-frontal view color photos. The majority of the African American photographs were attained from a database of faces comprised of female adults who posed with neutral facial expressions (Watson, 2005). The photographs were taken from the women’s forehead to their chin. The lighting in the room was standardized by using a blackout curtain when necessary. In order to control for differences in clothing, the participants’ attire was covered with a white drape. Also, the participants were asked to remove all eyewear, large earrings and/or other body jewelry that may have provided attractiveness cues (Watson, 2005). Additionally, some of the African American faces were attained from Internet face databases (Huang & Rauss, 1998; Kanade, Cohn, & Tian, 2000; MacBrain Face Stimulus Set, n.d.; Minear & Park, 2004; Phillips, Moon, Rizvi, & Rauss, 2000; Phillips, Wechsler, Huang, & Rauss, 1998).

The Caucasian photographs were donated from various Internet face databases (Kanade et al., 2000; MacBrain Face Stimulus Set, n.d.; Minear & Park, 2004; Phillips et al., 1998; Phillips et al., 2000). The graphic program, Adobe Photoshop, was used to create pictures similar to the African American photos. The two sets of pictures were comparable in size, brightness, contrast, color balance, and background.
FantaMorph software was used in order to create the different averages. The software program digitally created mixed images and allowed for a plethora of individual still pictures to be “blended” therefore creating one single composite photograph (Abrosoft, 2008). FantaMorph was one of the premier morphing software programs and had been used in a number of peer reviewed research journals (Abrosoft, 2008; Pitcher, Charles, Devlin, Walsh, & Duchaine, 2009; Rhee, 2006; Tsakiris, 2008). The program was user friendly and imported/exported 32-bit image with alpha formats BMP, TIFF, PNG, and TGA. It also allowed for real-time preview and playing as well as automatically detected facial features and had the ability place key dots in appropriate positions. Most importantly, it allowed for two or more pictures to be morphed simultaneously which helped the multi-face morphs to be created with ease (Abrosoft, 2008).

One major strength of the morphing process was its ability to provide a tangible example of the (cognitive) facial averaging process. Furthermore, the software had been used by a plethora of researchers for data collection. It was posited that due to the quality and realistic appearance of the composites produced, the software was chosen.

Although the software used did help simplify the morphing process, there was some difficulty with blending the faces, especially, with the creation of the eyes, noses, and mouths of the morphs. Specifically, if the key dots were not placed correctly, the facial features of the composites became warped and unrecognizable as human faces. Furthermore, with the morphing of the biethnic faces, for some faces the thickness of the African American female lips and
noses and thinness of the Caucasian lips and noses made it difficult to attain realistic facial features. Trial and error of using particular African American faces with particular Caucasian faces helped to make the blending processes easier. However, specifically matched faces may have caused a multitude of original (attractive) faces to be included in a morph while average or low attractive women were included in another. Although this caveat had not been mentioned in the literature, it could be considered as a flaw with the morphing process and potentially to the averaging theory.

In Langlois and Roggman’s landmark 1990 study, composites were rated as attractive when the averages included as few as 16 faces. Therefore, the current study created morphs with 16 faces. Five composites were produced. The composites were created in the following ways: 1) one hundred percent African American faces, 2) one hundred percent Caucasian faces, 3) fifty percent African American faces and fifty percent Caucasian faces, 4) seventy-five percent African American faces and twenty-five percent Caucasian faces, 5) seventy-five percent Caucasian faces and twenty-five percent African American faces. There were two different exemplars for each of the above mentioned facial averages. (Please see Table 1, for stimulus pictures). The terms 100% for each ethnic group was determined via the self-proclamations/ratings of the women whose pictures were used in the morphs. The biethnic faces were manufactured via the researchers. Therefore, women of biethnic heritage were not to create the biethnic morphs. Furthermore, the current study used two exemplar photos in order to best replicate studies that have used similar
procedures (Apicella et al., 2007; Jones & Diener, 1976). Also, the author was concerned with fatigue due to the length of the study and did not want to tax the participants more than necessary.

Ethnic Identity Scales

The African American participants completed the African American Acculturation Scale (AAAS) (Klonoff & Landrine, 2000; Landrine & Klonoff, 1994). The AAAS is the first scale created to measure acculturation levels among African Americans. The scale has 74 items and had high validity and reliability $r = .97$ (Landrine & Klonoff, 1994). The scale had been validated a number of times but one important confirmation occurred when the questionnaire was completed by both African American and non African American individuals. The authors conducted ANOVA tests in order to evaluate the mean differences with participants’ ratings on the multiple scale divisions ($F(8,107) = 29.94 \ p = .0001$). The ANOVA further demonstrated that African Americans scored significantly higher on the questionnaire than did the non African American participants ($F(1,114) = 13.03 \ p = .0001$). Another validity test examined the scores of African American persons who claimed that they “Currently live in a Black neighborhood”, an actual question on the scale, to the scores who claimed that they did not live in a Black neighborhood. The authors of the scale expressed that residence was a good indicator on ones’ acculturation level because persons received constant exposure to a particular cultural group. The analyses showed that participants who lived in Predominately African American neighborhood scored significantly higher on the African American Acculturation
Scale than those who lived in other neighborhoods ($t(49) = 2.10 \ p < .003$) (Landrine & Klonoff, 1994).

The questionnaire is presented in a Likert format ranging from 1 “this is absolutely not true of me”-7 “this is absolutely true for me”. The survey incorporates eight different dimensions: 1) Traditional African American religious beliefs and practices, 2) Traditional African American family structure and practices, 3) Traditional African American socialization, 4) Preparation and consumption of traditional foods, 5) Preference for African American things, 6) Interracial attitudes, 7) Superstitions, and 8) Traditional African American health beliefs and practices. Samples of questions included “I believe in heaven or hell”, “The church is the heart of the Black community”, and “I know how to cook chit’lins”. The higher one scored on the questionnaire the less acculturated they were to the majority culture. Moreover, the authors defined persons who scored high on the scale as traditional and those who scored moderately as bicultural, and finally those who scored low as acculturated (Landrine & Klonoff, 1994).

Over the past 15 years the scale has been used to investigate levels of acculturation in relation to physical actions, academic success, as well as psychological function (Dessources, 2008; Klonoff & Landrine, 1999, 2000, 2006; Landrine & Klonoff, 1994; Webb, 2008).

The Caucasian participants were given the Racial Identity Status Self-Assessment (RISSA) (Plummer, 2004). The RISSA can be used with various ethnic groups and was developed to account for socially acceptable concepts of
culture, tradition, and creed (Plummer, 2004). The RISSA contains five subscales which are labeled as statuses. The divisions are as follows:

- **Status 1**: Describes a level of unawareness of self as a racial person or low importance to race matters in one’s life.
- **Status 2**: Describes a state of awakening as a racial person.
- **Status 3**: Describes a strong identification with one’s race and/or rejection of privileged whiteness, and
- **Status 4/5**: Describes an integration of race in one’s life and multicultural attitudes (Plummer, 2004).

The scale had 30 questions. The respondents marked which statements they believed were mostly true for them. The numbered questions, which the participants selected, were added together in each status group. The higher the number in each status the more one agreed with the description provided (Plummer, 2004). At time of data collection, the RISSA had not been validated however; it was derived from a highly valid and reliable racial identity scale developed by William E. Cross (1991).

### Procedures

The researchers completed NIH training for the Protection of Human Research Participants. The participants were directed to sit in the research lab. The researchers obtained informed consent from the participants. Next, the researchers recited a short cover story to the participants. Specifically, the participants were told:
Today you will be evaluating the attractiveness ten female faces. Please view the pictures one at a time. You may have you rate the faces for attractiveness, date preference, marriage preference, familiarity, etc using numbers 1-5. Please ignore any digital flaws or poor quality of the photos and only judge the face. There is no right or wrong answer we simply want your honest opinion.

The participants were asked if they had any questions or comments. The photographs and scales were presented to the participants in random order. Both groups, African American and Caucasian participants, viewed the same photos.

The facial stimuli were exemplars. The following faces appeared in random order: Two 100% African American faces, two 100% Caucasian faces, two 50% African American/Caucasian faces, two 75%/25% majority African-American faces, and two 75%/25% majority Caucasian faces. The current researcher proposed one attractiveness measure. Again, the participants made a choice as to which faces they found the most attractive by choosing a corresponding number on the questionnaire using a Likert scale with 1 being very unattractive and 5 being very attractive. In order to measure social closeness, the participants were asked about: Dating potential, friendship potential, and marrying potential. Each scale is labeled from (1 very unlikely to 5 very likely). The faces were also judged on the following control variables/manipulation checks: Skin tone, (1 very light-5 very dark), youthful appearance, (1 not very youthful-5 very youthful), symmetry, (1 very asymmetrical-5 very symmetrical),
familiarity, (1 very unfamiliar-5 very familiar), femininity, (1 very masculine-5 very feminine). Additional information concerning social qualities was collected i.e., friendliness, religiosity, wealth, intelligence, kindness, hard working, etc. (Coker, Huang, & Kashubeck-West, 2009; Milner, 2006; Tillman, 2002). (Analyses of these variables were beyond the scope of this investigation.) Following the ratings of the various measures, participants were provided with a voluntary demographic form. The demographics collected from the participants did not include any identifying information i.e., name, social security or student identification numbers, birth date, etc. However, the researchers collected information regarding the participants: Age, ethnicity, years of education/classification, marital/relationship status, ethnicity of partner, ethnicity of parents, regional location, childhood SES, parents educational background, influence of African American females, association with African American groups and organizations, and media choices.

In order to gather information about their history with African American females, the participants were asked if they had childhood and adult authority figures who were of African descent. The questions were presented on Likert style scale, (1 never-7 very often). In regard to the media choices they were asked specific questions: How often do you look at African American TV Shows?, (1 never-7 very often), How often do you read African American Magazines?, (1 never-7 very often), and How often do you look at African American Music Videos?, (1 never-7 very often). (Analyses of these items were beyond the scope of this investigation.)
To evaluate the levels of ethnic identity, the African American men were provided with the African American Acculturation Scale and the Caucasian participants will be given the Racial Identity Status Self-Assessment (Landrine & Klonoff, 1994; Klonoff & Landrine, 2000; Plummer, 2004), as noted earlier. Next, the participants were asked to rate their skin tone using a paint strip that was pre-numbered from 1-7 with colors ranging from white (1) to dark brown (7). Finally, the participants’ photo were taken in the following poses: Neutral, smiling (no teeth), smiling (with teeth), and right and left profile pictures with neutral faces. The photos of the men were taken in order to begin a database of faces for future studies. The current investigators attempted to control for this procedure by a) informing the men during the consent process that they did not have to get their picture taken and b) by having the photo session as the final step in the data collection process. (Analyses of these variables were beyond the scope of this investigation.)

In order to address the proposed hypotheses multiple 2 (ethnicity of participants) x 5 (ethnicity of photos) ANOVAs with repeated measures on the last variable were used for the analyses. The questions for the current study were: 1. Did African American men find 75% African American and 25% Caucasian photo as most attractive? 2. Did Caucasian males considered the 100% Caucasian female composite as the most attractive face? 3. Was greater ethnic identification associated with more favorable ratings of same ethnic group faces for the African American participants? and 4. Did Caucasian participants whose ethnic identification was inclusive of a multicultural perspective find the
composite with darker skin tones more favorable? Moreover, the (two separate) ratings for each facial composite were combined and the average score for the faces was used in the analyses.
CHAPTER 3

RESULTS

Facial Evaluations

Of these 20 African American and 30 Caucasian participants, 19 African Americans had valid scores on the AAAS, and 24 Caucasians had valid scores on the RISSA. Only the data from these 43 participants are reported in this thesis. Furthermore, occasional missing scores reduced the data further on several analyses, as reflected in the degrees of freedom reported.

Although the participants were recruited from both within and outside of the University system, there were no significant differences between the two ethnic groups on the following demographics: Age $F(1,41) = .370$ n.s., Childhood Social Economic Status $F(1,36) = .030$ n.s., Father and Mother Educational Levels $F(1,38) = .606$ n.s.; $F(1,38) = 2.718$ n.s. Using a Pearson Chi-Square test, there was no significant difference between the ethnicities in regard to classification or year in school, $\chi^2(4) = 7.66$, $p > .10$. In both samples, the majority of participants were freshmen or sophomores.

A manipulation check was conducted through raters’ skin tone evaluations of the composite photos. A 2 x 5 mixed ANOVA, with the between subjects factor of participant ethnicity and the 5 level within subjects factor of skin tone, was conducted. Overall, darkness ratings decreased from the 100% African American to the 25% African American face, and were lowest for the 100% Caucasian face $F(4,156) = 131.11$ $p < .01$. Caucasian participants rated the photos are darker than did African American participants, $F(1,39) = 37.78$ $p <$
Interestingly, the pictures were continuously rated as lighter by African American men than by Caucasian men until their judgments of the 100% Caucasian face, where the ratings nearly converged (see Figure 1). As shown, there was some agreement between the two groups on the skin color of the 100% Caucasian composite (African American Males’ \( M = 1.16 \); Caucasian Males’ \( M = 1.30 \)). Despite this converging pattern, the interaction between ethnicity of judges and ethnicity of picture narrowly missed significance, \( F(4,39) = 2.33, p = .058 \).

Figure 1

Ratings of Skin Tone by Respondent and Photograph Ethnicity
It was hypothesized that African American males would find the 75% African American female face as the most attractive face, and that Caucasian males would find the 100% Caucasian female face the most attractive. Examining the mean ratings of attractiveness, as shown in Figure 2, African American men did not find the 75% African American face as most attractive ($M = 3.11$ $SD = .978$) but rather rated both the 75% and the 100% African American composites almost equally ($M = 3.13$ $SD = .951$). As predicted in hypothesis two, Caucasian men did rate the 100% Caucasian female face as the most attractive face ($M = 3.10$ $SD = .782$). Additionally, they rated the 100% African American female face as the least attractive face ($M = 2.43$ $SD = .105$). Moreover, Caucasian and African American men rated the Caucasian female face as attractive ($M = 3.10$ $SD = .782$; $M = 2.90$ $SD = .916$, Caucasian and African American males’ mean scores respectively).

Mean ratings of attractiveness of the composite faces were analyzed with a 2 x 5 mixed ANOVA, with two levels of rater ethnicity as a between subjects variable and five levels of ethnicity of rated faces as the within subjects factor. Attractiveness ratings differed for the composite faces, as shown by the significant main effect for photo type, $F(4,156) = 3.07$ $p < .05$. Overall, the two groups of respondents did not differ in their ratings of the faces, $F(1,39) = 1.26$, n.s. But the interaction of rater ethnicity and level of ethnicity of faces was significant, $F(4,156) = 3.10$, $p < .01$; Figure 2 shows the mean ratings of attractiveness of the faces, separately for African American and Caucasian raters. To determine which differences between means accounted for the
significant interaction, comparisons of the means were made taking into account the 95% confidence intervals around the means, as shown in Table 1. Considering African American raters first, from these values it appears that African American raters judged the 100%, 75%, 50%, and 0% African American faces as equally attractive, with only the 25% African American faces judged low in attractiveness. In contrast, Caucasian raters judged the 100%, 75%, 50%, and 25% African American faces as relatively low in attractiveness, with no differences, but judged the 0% African American (that is, 100% Caucasian) faces as attractive. In fact, the attractiveness ratings for the 0% African American faces on the part of both groups, 2.89 and 3.11 respectively for African American and Caucasian raters, both fell within the each other’s 95% confidence limits (and likewise, both rater groups judged the 25% African American faces as equally low in attractiveness, with mean ratings of 2.53 and 2.50).

Figure 2

Ratings of Attractiveness by Respondent and Photograph Ethnicity
Table 1

Mean Attractiveness Ratings and 95% Confidence Interval Bounds for African American and Caucasian Raters

**African American**

<table>
<thead>
<tr>
<th>Mean Rating</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>3.142.663.62</td>
<td></td>
</tr>
<tr>
<td>75%</td>
<td>3.112.673.55</td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>2.942.553.34</td>
<td></td>
</tr>
<tr>
<td>25%</td>
<td>2.532.092.96</td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>2.892.493.29</td>
<td></td>
</tr>
</tbody>
</table>

**Caucasian**

<table>
<thead>
<tr>
<th>Mean Rating</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>2.432.012.86</td>
<td></td>
</tr>
<tr>
<td>75%</td>
<td>2.652.263.04</td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>2.702.353.04</td>
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</tr>
<tr>
<td>25%</td>
<td>2.502.112.89</td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>3.112.753.46</td>
<td></td>
</tr>
</tbody>
</table>

For the familiarity construct, a 2 x 5 mixed ANOVA was used. The participant ethnicity variable did not reach significance as a main effect, $F(1,40) = .849$ or n.s., and neither did the manipulation of stimulus ethnicity, $F(4, 160) = 1.26$ n.s. Overall, the pictures were rated as moderately low in familiarity (African American participants’ overall group mean $M = 2.24$, Caucasian participants’
overall group mean $M = 2.51$), and average familiarity rating did not change appreciably across level of ethnicity of the photos. However, there was a significant interaction between the ethnicity of the raters and the familiarity ratings of the pictures, $F(4,160) = 3.69$, $p < .05$, shown in Figure 3. There was a tendency for familiarity ratings by African American raters to decline as the photos declined in the percentage of African American features in the photos, and conversely a tendency for Caucasians’ ratings of familiarity to increase as the percentage of Caucasian features increased, thus accounting for the interaction. In agreement with this interpretation, the mean rating by Caucasian raters at the 75% Caucasian level (25% African American), 2.76, and at the 100% Caucasian level (0% African American), 2.72, fell outside the 95% confidence limits for the ratings by African American raters (upper bounds were 2.58 and 2.70, respectively).

**Figure 3**

Ratings of Familiarity by Respondent and Photograph Ethnicity
Figure 4 shows the mean femininity ratings of African American and Caucasian raters for the five different face types. Although the figure shows that Caucasian raters gave somewhat lower femininity ratings to the photos, the main effect of rater group was not significant, $F(1,40) = 1.95$, n.s. There was a main effect of photo, $F(4,160) = 7.91$, $p < .01$, but the interaction of race by photo type was not significant, $F(4,160) = 0.875$. The tendency in both rater groups was to rate the 100% African American and 100% Caucasian faces as more feminine, as compared to their ratings of faces with mixed features. Interestingly, the mean femininity ratings by African American raters were nearly identical for the 100% African American (3.63) and 100% Caucasian (3.76 faces, whereas the Caucasian raters clearly viewed the 100% Caucasian faces as more feminine (mean rating was 3.56, with a lower bound on the 95% confidence interval of 3.26, compared to their rating of 3.24 for the 100% African American faces).
The morphed faces were considered symmetrical, according to Figure 5. According to the results of the 2 X 5 mixed ANOVA, African American judges rated the photos on symmetry in much the same fashion as did Caucasian judges; the main effect of race of judges was non-significant, $F(1,38) = .221$, n.s. The main effect of percentage ethnicity of the photographs was significant, $F(4,152) = 3.79$, $p< .01$, but the interaction with race of judge was not, $F(4,152) = .791$. As shown in Figure 5, and as confirmed by examining the 95% confidence intervals around the group means, faces at the 50% African American and 75% Caucasian levels were rated lower in symmetry than faces in the other conditions; means in those two groups were outside the 95% confidence limits of the other conditions’ means.

Figure 5
Ratings of Symmetry by Respondent and Photograph Ethnicity
As is apparent in Figure 6, ratings of youthfulness were nearly the same for African American and Caucasian raters, according to the results of the 2 X 5 mixed ANOVA; the main effect of race of rater was non-significant, $F(1,38) = .03$, n.s. The ratings of the five different faces did differ significantly, however, $F(4,152) = 5.44, p < .01$. Examination of the means and 95% confidence intervals revealed that mean ratings for the 75% AA and 50% AA faces were nearly the same, but fell out of the range of the means for the 75% CA and 100% CA means. The ratings for the 100% AA photos were intermediate, and not distinguishable from either of these two groupings. Apparently, both groups of raters found composite faces that appeared more Caucasian as more youthful, the intermediate levels of African American composites to appear less youthful, and found 100% African American faces to appear at an intermediate level of youthfulness.

Figure 6
Ratings of Youthfulness by Respondent and Photograph Ethnicity
Social Closeness

The men were asked how likely it would be for them to befriend the woman based on her facial composition. Overall, a 2 x 5 mixed ANOVA showed that there were no differences in the likeliness of African American or Caucasian men of befriending the woman represented on the photo \( F(1,40) = .68 \) n.s. However, the analysis demonstrated that depending on the ethnic background of the picture significant differences were recorded in the men's’ desires to be friends \( F(4,160) = 2.44 \ p < .05 \). The interaction between race of participant and ethnic background of the picture narrowly missed conventional significance, \( F(4,160) = 2.33, p = .058 \). As seen in Figure 7, the African American men provided higher befriend ratings for the 100%, 75%, and 50% African American composites, in comparison to the Caucasian respondents (e.g., African American males’ AA 75% \( M = 3.28 \); Caucasian males AA 75% \( M = 2.86 \)). The first two means were on the borderline of the 95% confidence interval of the contrasting mean. For example, for the 100% African American face, the mean of 3.10 for Black raters was barely in the 95% confidence interval of 2.15 to 3.11 for the White mean; for the 75% African American face, the mean of 3.28 for Black raters was just outside of the 95% confidence interval of 2.40 to 3.26 for the White mean. However different, the raters’ judgments of friendship interest were for the 100% African American and the mixed faces, African and Caucasian American men had almost equal interest in befriending the 100% Caucasian photos (African American males’ \( M = 3.05 \); Caucasian males’ \( M = 3.06 \)).
A 2 x 5 mixed ANOVA confirmed that overall dating interest with the composites was not significantly different for the two ethnic groups $F(1,40) = .58$ n.s. The same analysis denoted that on average there were no differences across faces in dating the composites based on their facial appearance $F(4,160) = 1.67$ n.s. Black males showed the highest interest in dating the 100% African American female ($M = 2.66$) and the least interest in the 75% Caucasian face ($M = 1.92$). Caucasian males showed the most interest in dating the Caucasian female ($M = 2.5$) and the least interest in dating the African American female ($M = 1.89$). The analysis also showed that there was a significant respondent by photo interaction $F(4,160) = 5.20 \ p < .01$. As confirmed by inspection of the
means and 95% confidence intervals, there was an overall decrease among African American raters in dating interest as the faces became decreasingly African American, with a slight but non-significant increase in dating interest for the 100% Caucasian face. Conversely, among Caucasian raters, there was low dating interest in the 100% African American face, but a general increase in dating interest as the faces became more and more Caucasian in appearance. For both races of raters, faces at the opposite ends of the continuum were significantly different in rated dating interest that fell outside of the 95% confidence intervals for the face at the opposite end of the photo continuum. In other words, the more African American the face appeared, the higher the dating interest of the African American males. In comparison, the more Caucasian the face appeared to the Caucasian males, the more inclined they were to date.

Figure 8
Ratings of Dating Interest by Ethnicity of Respondent and Ethnicity of Photograph
On the final social closeness measure, the raters were asked how likely it would be for them to marry the woman shown in the photograph. The group mean scores for marrying the females were very low (AA Group $M = 1.80$; CA Group $M = 1.64$). Furthermore, a $2 \times 5$ mixed ANOVA certified that there were no differences between the ethnic groups’ marriage ratings $F(1,38) = .311$ n.s. Furthermore, no matter which photo the men responded to, they showed minimal interest in marrying the female composites $F(4,152) = 3.32$, although this effect approached significance, $p = .076$. However, there was a significant difference in opinions based on the ethnicity of the woman and the ethnicity of the male participant(s), $F(4,152) = 5.12 p<.01$. Specifically, ratings by Caucasian men ranged from 1.52 to 1.91, and each mean fell within the 95% confidence limits of the other means. In other words, Caucasian males’ ratings on the marry scale did not differ across the differing ethnicities of the photos. In contrast, African American men showed differences in their ratings. Their mean for the 100% African American faces was 2.19, with a 95% confidence interval of 1.72 to 2.67. This interval did not contain the mean ratings for the 50% AA, 75% CA, or 100% CA faces. Similarly, their confidence interval for the 75% AA faces, 1.54 to 2.46, excluded the mean for the 75% CA faces. Thus, the two faces composed of the most African American features were given higher ratings on the marry scale by African American men than faces with few or no African American features. Note, finally, that as was true with several other measures, there was a slight increase in African American men’s ratings on the 100% Caucasian faces.
The overall scores for familiarity, femininity, symmetry, and youthfulness were combined and compared with the ethnicity of participant and ethnicity of picture independent variables (Cronbach’s alpha = .649, indicating moderate internal consistency in measurement). Similar to earlier analyses, there were no significant differences on the ratings of the faces between the two ethnic groups $F(1,37) = 56$ n.s. However, the type of face (i.e. ethnicity of the face) was important in regard to the pictures’ ratings $F(4,148) = 3.85, p < .01$; the interaction of ethnicity of raters and photos was not significant, $F(4, 148) = .792$. Figure 10 seems to show that African American men have an attraction both to the African American face and to the Caucasian face, whereas Caucasian men...
expressed less attraction to African American faces but more to the 100% Caucasian face. The nonsignificant interaction, however, suggests that there was simply a drop in attraction to faces away from the extreme percentages of features, i.e., away from 100% African American or 100% Caucasian features.

Figure 10
Ratings of Overall Face Evaluation (Familiarity, Femininity, Youthfulness, and Symmetry) by Ethnicity of Respondent and Ethnicity of Photograph

When investigating all three social closeness measures of befriend, date, and marry, the variable were combined in order to analyze the participants’ overall likelihood of becoming close to the composites (Cronbach’s alpha = .879,
indicating high internal consistency in measurement). The analysis showed no overall difference between the two rater groups in regard to the ratings of social closeness, that is when looking at the overall ratings concerning the likelihood that the African American and Caucasian participants would become friends, date, or marry the female composites, the results failed to reach significance, $F(1,38) = .70 \text{ n.s.}$ However, the $2 \times 5$ ANOVA demonstrated a significant main effect for the type of photo, $F(4, 152) = 2.79$, and there was a significant interaction between the type of photo type viewed and the ethnicity of the judger, $F(4,152) = 5.90 \ p < .01$.

Figure 11

Ratings of Social Space (Befriend, Date and Marry) by Ethnicity of Respondent and Ethnicity of Photograph
The interaction showed that with Caucasian men, ratings of social closeness increased gradually as the photos showed more and more Caucasian American features; for instance, the mean rating for the 100% Caucasian female Face, 2.48, fell outside the 95% confidence interval of the mean for the 100% African American female face. For African American raters, however, there was a steady decline in the social closeness composite ratings as the faces showed fewer and fewer African American features, with only a minimal increase when it came to the 100% Caucasian face. For these raters, the 100% African American face differed significantly, on the basis of the confidence intervals, from the 50% African American face, 75% Caucasian face, and 100% Caucasian face. There was also a difference between the 75% African American face and the 75% Caucasian faces.

Racial Identity

The ethnic identity measures were qualified as the African American Acculturation Scale (AAAS) for the African American participants and the Racial Identity Status Self Assessment (RISSA) for the Caucasian participants (Landrine & Klonoff, 1994; Plummer, 2004). For the African American participations, a 2 x 5 ANOVA, where 2 was the between groups factor, was conducted. More specifically, a median split differentiated the groups into two levels of acculturation. As a reminder, acculturation is defined as how closely one relates to the majority culture. Therefore, a low acculturation score constituted high African American ethnic identity. The groups were distinguished as low acculturation, closely relating to the African American cultures ideals, or
high acculturation, closely relating to the majority cultures ideals. The results of the ANOVA demonstrated that there were no significant differences between the groups in regard to their scores on the Acculturation scale to their ratings of the female facial attractiveness, all p values > .05, although the main effect of photo type approached conventional significant (p = .068). The trend in this effect was for these men to rate the 75% CA faces as lower in attractiveness, with the other faces approximately equal in attractiveness.

Similarly, scores of Caucasian raters on Status 4/5 of the Racial Identity Status Self Assessment Scale were placed in a 2 x 5 ANOVA, where two is the between group factor. Scores for Status 4/5 were used in the analysis because the scale items and the definition for this status best parallel the AAAS. Specifically, Status 4/5 embraced multicultural ideals. A median split was used to generate two groups. Low scores on Status 4/5 were defined as low agreement with the definition, and high scores equal high agreement with the ideologies associated with the status. The results of the ANOVA revealed a non-significant effect of group, $F(1,21) = .422$, but a significant main effect of photo, $F(4,84) = 3.70$, $p < .01$; the interaction was not significant, $F(4,84) = .84$. The means for the main effect showed an increase in attractiveness from 2.45 for the 100% AA faces to 3.11 for the 100% CA face; these two faces at the extremes fell outside of the other’s 95% confidence limits, and in fact all faces containing African American features fell outside the confidence limits of the 100% CA face (its limits were 2.76 to 3.46; all other means ranged from 2.45 to 2.70).
CHAPTER 4
DISCUSSION

The current researcher added new information to the literature regarding intragroup and intergroup physical attractiveness as well as ideals concerning social closeness based solely on facial features. The concept of facial attractiveness and social likeability to ethnically diverse female facial averages were also investigated. Additionally, both groups viewed mixed African American and Caucasian face composites, which consisted of varied percentages of African American and Caucasian faces (Rhodes et al., 2005). As previously noted, there were a number of researchers who established that there are more general preferences--than specific preferences--for what is concluded as attractive (Cunningham et al., 1995; Fink & Penton-Voak, 2002; Grammer & Thornhill, 1994; Jones, 1995; Langlois & Roggman, 1990; Langlois et al., 1994; Rhodes & Tremewan, 1996; Wade 2000; Wade, 2003; Valentine et al., 2004). However, those studies failed to include African American participants (as well as African American stimuli). Since this major subgroup has been ignored, there has been a divide in the literature which has caused there to be limited cross cultural evidence for many attractiveness theories but most specifically averaging research (Apicella et. al., 2007; Byatt & Rhodes, 1998; Cash & Duncan, 1984; Dixson, Dixson, Morgan, & Anderson, 2007; Jaquet, Rhodes, & Hayward, 2007; Langlois et al., 1994; Langlois & Roggman, 1990; Perrett, May, & Yoshikawa, 1994; Potter & Corneille, 2007; Potter & Corneille, 2008; Potter et al., 2007;
It was important to look at attractiveness measures among African Americans because attractiveness cues develop certain stereotypes and biases (Crivens, 2000; Dion et al., 1972; Eagly et al., 1991; Emerson et al., 2002; Friedman & Zebrowitz, 1992; Rich et al., 1998; Rubenstein, 2000; Stephens & Few, 2007; Ward et al., 2005; Washington & Shaver, 1997). The overall general societal rule with attraction has been that individuals were not to judge another person based on their physical appearance. Although these beliefs were regulated as being socially acceptable and politically correct, research has indicated that involuntarily, with assurance, and in complete opposition to standard beliefs, appearance based judgments occur; and these judgments directly affect the attractiveness, social desirability, and character trait ideals of an individual (Cunningham et al., 1995; Fink & Penton-Voak, 2002; Grammer & Thornhill, 1994; Jones, 1995; Langlois & Roggman, 1990; Langlois et al., 1994; Rhodes & Tremewan, 1996; Wade 2000; Wade, 2003; Valentine et al., 2004).

The results of the current study demonstrated some interesting findings in regard to ethnicity and facial preference for a number of measures. Moreover, several findings had strong theoretical merit and descriptive value (Liu et al., 1995). Interestingly, some aspects of the research supported the theories proposed in past studies. Conversely, this was not the case for each of the hypotheses presented in the current research.
First, in order to check the proposed manipulations, the participants rated the skin tones of the facial averages. As viewed in the figure (see Figure 1), the manipulation worked. As expected, the men did not differ in their ratings on skin tone and ranked dark and the light skin tones similarly although Caucasian participants scored all of the composites as darker than did the African American participants.

In reference to the attraction measure, the literature has supported that, averaged faces are attractive (Langlois & Roggman, 1990; Langlois et al., 1994; Perrett, May, & Yoshikawa, 1994; Rhodes & Tremewan, 1996; Rhodes et al., 1999; Valentine et al., 2004). However, the research participants in our study produced mixed opinions in regard to the averages produced (see Figure 2). For hypothesis one, it was predicted that African American men would find the 75% African American face as the most attractive because, according to the averageness theory, a prototype for an attractive face is established via exposure to thousands of faces over one’s lifespan (Langlois & Roggman, 1990). The current researcher speculated that African American men had been dually exposed to African American and Caucasian women and therefore established a prototype which included both ethnicities (Englis, Solomon, & Ashmore, 1994; Feliciano, Robnett, & Komaie, 2009; Freedman, Carter, Sbrocco, & Gray, 2007). It was further postulated that the 75% African American face would have been chosen versus the 50% or majority Caucasian faces due to Black male’s obligation to African American women and/or social acceptance/correctness (Emerson et al., 2002). The researcher considered that the 75% majority African
American face would best meet the conditions of the averageness and social acceptance theories because a) the face included the majority culture which in turn sufficed the men’s exposure to White faces and b) the 75% morphs facial appearance was closely related to that of African American women so the choice would not be a complete rejection of Black female attractiveness. However, the hypothesis was marginally supported. Specifically, the African American participants rated the 100% and 75% African American faces the exact same. Further, they showed minimal differences toward the 50% African American/Caucasian face and the 100% Caucasian face. As reported in the results there was significant difference between the ratings of the 100% and 75% African American faces and the 75% Caucasian face (low scores for the 75% Caucasian face were constant across measures and ethnic groups). Although it was postulated that African American men would score the photos differently depending on their ethnic composition, the Black males’ opinions were more consistent with the averageness literature/theories than the current researcher originally proposed. This provides additional cross cultural evidence that the Black males’ evaluations’ support the theory, although the participant pool and the stimuli were both unique to the facial averageness (Langlois et al., 1994; Langlois et al., 2000; Langlois & Roggman, 1990; Perrett et al., 1994; Rhodes et al., 1999, 2001, 2002; Rhodes & Tremewan, 1996; Rubenstein et al., 1999, 2002; Valentine et al., 2004).

Alternatively, the investigation indicated that there was an intragroup facial preference with the Caucasian American respondents. Although this finding was
a bit surprising in comparison to the majority of previous facial averaging outcomes, the results supported the cognitive facial averaging application and the ethnocentric/ingroup/outgroup literature (Apicella et al., 2007; Kalmijn, 1998; Knox, Zusman, & Nieves, 1997; Walster et al., 1966; de Haan et al., 2001; Langlois & Roggman, 1990; Valentine, 1991; Valentine & Ferrara, 1991; Valentine et al., 2004). As a reminder, the cognitive approach contended that a prototype for faces was created via exposure to multitudes of faces (Langlois & Roggman, 1990). Perhaps, the Caucasian males in the current study had a face model which excluded African American women and therefore; their representation of an attractive face is void of African American female faces. Consequently, this void caused the men to rate the majority African American face as unattractive (Apicella et al., 2007; Langlois & Roggman, 1990).

A very recent study which provided additional cross cultural information for the averageness theory was conducted with a population in Tanzania Africa. The results showed that averaged photos were rated as more attractive than the individual pictures used to create the averages. The research further supported that exposure to faces may had been important to the averages’ levels of attractiveness. Similar to the current researcher’s study, averageness was found attractive across ethnic groups (i.e., European versus African samples). However, when the Tanzanian participants rated the attractiveness levels of the European facial averages, the composites were not scored as attractive. The authors concluded that due to the lack of exposure that Tanzanian people had to European faces, an attractiveness preference for the European face was not
found (Apicella et al., 2007). Additionally, ingroup preferences may have influenced the Caucasian males’ attractiveness choices (de Haan et al., 2001; Jones & Diener, 1976; Kalmijn, 1998; Knox et al., 1997; Liu et al., 1995; Walster et al., 1966). Finally, perhaps racism/stereotypes and/or biases caused the Caucasian men to not rate the majority African American faces as attractive. As mentioned before, the media stigmas associated with African American women have been misleading, negative, and stereotypical. It is postulated that both the misrepresentation and underrepresentation of African American women in the public domain have provided limited attractiveness information to White males, again underscoring their lack of exposure to Black women and therefore a lack of support for the averageness concept (Crivens, 2000; Emerson et al., 2002; Rich et al., 1998; Stephens & Few, 2007; Ward et al., 2005; Washington & Shaver, 1997).

For the third hypothesis, it was posited that ethnic identification would moderate the attractiveness ratings of the African American men. More specifically, the African American Acculturation Scale was used to measure the men’s ethnicity levels. Surprisingly, there were no significant differences in the ratings of attractiveness in relation to the ethnic affiliation of the respondents. Moreover, the current researcher was not successful in finding studies that supported this claim, so the question was quite exploratory. Research from past studies reported results which included self evaluations of attractiveness paired with self evaluations of acculturation (Arora, 2003; Dessources, 2008; Lester, 1997; Kohlmaier, 2004; Powell, 2002; Spadafore, 2008; Thomas, 2006).
Perhaps, although unlikely, the scale is more reliable when conducting self-evaluations and predicting self-fulfilling prophesies in regard to attractiveness constructs. A more reasonable explanation for the lack of significant results is the very small sample size evaluated in this study. More specifically, 19 respondents were separated by a median split. The median split quantified groups with only ten low and eight high group members for each of the two acculturation levels. It is posited that the analyses lacked power because of the small numbers being used in the analysis. In order to attain more powerful results additional research is needed with a larger sample size. Also, a more succinct hypothesis may be warranted e.g., acculturation studied solely with attraction versus a number of other constructs, or perhaps it will work better with a between subjects (only) design. Therefore, it is noted that there may have been limitations with use of the scale in the current research design.

The analysis for hypothesis four was very similar to hypothesis three. The men’s scores on Status 4/5 of the RISSA were divided into low and high groups. There were a total of 23 responses which is a very small N. Status 4/5 contends that an individual is accepting of multiculturalism therefore, it was hypothesized that high scores on this section would garner attractiveness ratings that would reflect the Caucasian males’ acceptance of culture. However, the hypothesis was not supported, in that the ratings conformed to the principle of increased attractiveness ratings as a function of match with the rater’s race. It is concluded that additional data are needed in order to help substantiate claims that ethnic identity moderates ratings of attractiveness.
Although the researcher did not make predictions regarding the attractiveness measures of familiarity, femininity, symmetry, or youthfulness it does merit some commentary. In regard to the familiarity construct, the men found the faces to be somewhat familiar. African American men only rated familiarity differently on one photo (the 100% AA face and the 50% AA face) while Caucasian males increased their familiarity ratings the more Caucasian the face appeared. Although the groups’ scores on familiarity were not as high as with the attractiveness ratings, the trends for familiarity were similar to the attraction scores. Specifically, Caucasian participants showed an Intragroup preference for the faces and African American participants demonstrated an equal preference for the faces.

The men judged the faces high on femininity. In fact their views were minimally different (see Figure 4). Previous research supports high agreement between attraction and femininity however, our samples did not rate all of the faces attractive {e.g., Caucasian males ratings of the 100% African American face and the African American males ratings of the 75% Caucasian face} (Rhodes et al., 2003). Consequently, it is speculated that similar to the skin tone ratings, feminine features are very distinct and will be rated consistently regardless of the attractiveness level.

Symmetry garnered similar results as the femininity ratings. The faces were rated symmetrical, a characteristic of attractive faces Baudouin & Tiberghien, 2004; Gangestad, Thornhill, & Yeo, 1994; Grammer & Thornhill, 1994; Little & Perrett, 2002; Perrett, Burt, Penton-Voak, Lee, Rowland, &
Edwards 1999; Rhodes, Carey, & Byatt, 1998; Rhodes, Sminch, & Byatt, 1999; Thornhill & Gangestad, 1993). However, all the faces in the current study were not rated as attractive. Perhaps for this researcher’s population the symmetry effect served as a manipulation check therefore, explaining the discrepancies between the respondents’ ratings of attraction and symmetry.

The youthfulness measure generated high ratings. It is again speculated that the construct was better treated as a manipulation check helping to assure that the attractiveness variable was accurately measuring level of attraction for the groups. It posited that the high ratings on this and other the attractive questions are evident that the main attraction variable did measure levels attractiveness for the photos.

For the social closeness measure of friendship both groups were in favor of being the friend of the composite. More specifically, in regard to becoming friends with a Caucasian woman, the men’s answers paralleled each others. However, although not significant, the trends approached Intragroup preferences for both ethnic groups.

With the dating measure, Black men showed an ingroup preference. However, their preference did not demonstrate a significant difference between the majority African American composites and the 100% Caucasian composite (although a significant difference was shown for the 75% majority Caucasian face). Caucasian men showed minimal interest in dating the African American composite and rated the dating potential of the Caucasian composite as marginal.
In regard to marriage potential, the men demonstrated low interest in the faces. Interestingly, both groups rated their own 100% ingroup faces as higher in marriage potential than the 75% Caucasian face. As aforementioned, the 75% Caucasian face had continuously low(er) ratings in comparison to the other composites.

Limitations

The current author recognizes that there were limitations to the data collected. First, the sample sizes for both ethnic groups were very small and perhaps did not yield the power necessary to find significance with each measure. Also, a within subjects design was employed. A between subject design may have been a better fit for the study because the men would not have had a multitude of pictures to judge. Perhaps, the participants in the current study used one photo to judge another, again, a between subjects design would eliminate this potential limitation.

The current researcher postulates that the “creation” of a biethnic morph was not representative of the biethnic population. Therefore, a limitation to this study was the lack of biethnic female faces in the stimuli materials. Also, the researcher failed to collect demographic information regarding the participants’ sexual orientation. Although cross-gender/cross-sexual orientation ratings of facial attractiveness is normal among the literature, the current proposal asked questions regarding social closeness with the assumption that the men in the sample would consider dating or marrying the women presented in the photograph outside of the laboratory setting. If there were participants who
would not date or marry a woman, this oversight may have presented a limitation. In regard to taking the male’s photograph, this may have caused some uneasiness for the participants. It was not difficult for them to assume that their faces could be used in future studies. However, the men were given the option to opt out of this portion of the study, which several participants chose to do.

There is some importance in mentioning the gender/ethnicity of the researchers. Specifically, the consent, skin tone ratings, and photo sessions were sometimes conducted by African American and Caucasian women. Either social acceptability and/or researcher biases may have influenced the respondents’ answers on the questionnaires. Additionally, the social closeness constructs may have not been the best match for the current research project. Not only due to the assumption that the samples were heterosexual, it may also have been a bit unrealistic to ask about potentially long term/serious relationships based solely on looks. In order to improve this variable perhaps descriptions can be attached to a photo so that the participants may have more information to base their opinions on. Finally, the pictures themselves may need to be improved. Specifically, masking hair and clothing as well as clearing the blurriness of the faces may yield different results.

Research Directions

Future research could explore additional social qualities such as intelligence, honesty, religiosity, and more. Also, it may be important to collect information on media exposure of African American and Caucasian men which may mirror the types of faces being used in the study. In addition, interpersonal
attractiveness is tied to non-facial features (body type, attire), these variables were not examined the current study.

A future directive could include true (self-identified) biethnic persons for the stimuli photos. Since the rating for the 50/50% and 75% biethnic morphs garnered low ratings by both ethnic groups, it is posited that a more representative morph would be created via the blends of actual persons from biethnic backgrounds. It would be interesting to look at aging populations with the facial averageness theory. This may be especially important since a major critique of the theory is related to the youthful appearance of the averages. Examining attractiveness ratings with the aging population may help to quiet some of the criticisms if averageness is found to be constant. Furthermore, although young babies and adults have been participants in averageness studies, school aged children have not been evaluators nor evaluated. Since stereotypes begin early in development, collecting information about attraction from children may help to combat some of the appearance based biases.

Finally, it would be interesting to conduct research with persons involved with the religious community, since Biblical and other religious principals advocate love, peace, unity, etc. The current researcher would like to know if their judgment of attractiveness would differ from those who do not claim a religious heritage. This study may be expanded to include a broader range of subject background variables, larger and more representative samples, and truly experimental designs (involving random assignment).
APPENDIX A

FACIAL STIMULI

(Top row 100% African American, 2nd row 75%, 3rd row 50%, 4th row 75% Caucasian, 5th row 100% Caucasian)
APPENDIX B
QUESTIONNAIRES

Instructions: Please tell us your personal opinion regarding the statements listed by circling a number. There are no right or wrong answers. We want your honest opinion. Thank you.

How attractive is this woman?

<table>
<thead>
<tr>
<th>Very Unattractive</th>
<th>Somewhat Attractive</th>
<th>Very Attractive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Would you befriend this woman?

<table>
<thead>
<tr>
<th>Very Unlikely</th>
<th>Somewhat Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>4</td>
<td>5</td>
<td></td>
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</tbody>
</table>

Would you date this woman?

<table>
<thead>
<tr>
<th>Very Unlikely</th>
<th>Somewhat Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>4</td>
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<td></td>
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</tbody>
</table>

Would you marry this woman?

<table>
<thead>
<tr>
<th>Very Unlikely</th>
<th>Somewhat Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
### What is the skin tone of this woman?

<table>
<thead>
<tr>
<th>Very Light</th>
<th>Somewhat Light</th>
<th>Very Dark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### How youthful is this woman?

<table>
<thead>
<tr>
<th>Not Very Youthful</th>
<th>Somewhat Youthful</th>
<th>Very Youthful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>4</td>
<td>5</td>
<td></td>
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</tbody>
</table>

### How would you rate the symmetry of this woman?

<table>
<thead>
<tr>
<th>Very Asymmetrical</th>
<th>Somewhat Symmetrical</th>
<th>Very Symmetrical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
### How familiar is this woman?

<table>
<thead>
<tr>
<th>Very Unfamiliar</th>
<th>Somewhat Familiar</th>
<th>Very Familiar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### How feminine is this woman?

<table>
<thead>
<tr>
<th>Very Masculine</th>
<th>Somewhat Feminine</th>
<th>Very Feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### How religious is this woman?

<table>
<thead>
<tr>
<th>Not Very Religious</th>
<th>Somewhat Religious</th>
<th>Very Religious</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
### How intelligent is this woman?

<table>
<thead>
<tr>
<th>Very Unintelligent</th>
<th>Somewhat Intelligent</th>
<th>Very Intelligent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### How submissive is this woman?

<table>
<thead>
<tr>
<th>Very Resistant</th>
<th>Somewhat Submissive</th>
<th>Very Submissive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### How wealthy is this woman?

<table>
<thead>
<tr>
<th>Very Poor</th>
<th>Somewhat Wealthy</th>
<th>Very Wealthy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
### How honest is this woman?

<table>
<thead>
<tr>
<th>Very Dishonest</th>
<th>Somewhat Honest</th>
<th>Very Honest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### How generous is this woman?

<table>
<thead>
<tr>
<th>Very Selfish</th>
<th>Somewhat Generous</th>
<th>Very Generous</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### How kind is this woman?

<table>
<thead>
<tr>
<th>Very Unkind</th>
<th>Somewhat Kind</th>
<th>Very Kind</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
### How friendly is this woman?

<table>
<thead>
<tr>
<th>Very Unfriendly</th>
<th>Somewhat Friendly</th>
<th>Very Friendly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### How positive is this woman?

<table>
<thead>
<tr>
<th>Very Negative</th>
<th>Somewhat Positive</th>
<th>Very Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### How much of a leader is this woman?

<table>
<thead>
<tr>
<th>A Follower</th>
<th>Somewhat of a Leader</th>
<th>A Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
### How successful is this woman?

<table>
<thead>
<tr>
<th>Very Unsuccessful</th>
<th>Somewhat Successful</th>
<th>Very Successful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### How faithful is this woman?

<table>
<thead>
<tr>
<th>Very Unfaithful</th>
<th>Somewhat Faithful</th>
<th>Very Faithful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### How hardworking is this woman?

<table>
<thead>
<tr>
<th>Very Lazy</th>
<th>Somewhat Hardworking</th>
<th>Very Hardworking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

DEMOGRAPHIC FORM

Volunteer Demographic Form
(Please Print)

1. What is your age: __________

2. What is your classification: Please circle one of the following:
   Freshman       Sophomore       Junior       Senior       Graduate Student

   2a. If you are a graduate student, did you attend undergraduate school at a
       Historically Black College/University (HBCU) or a Predominately White Institution (PWI):

       ____________________________________________________________

3. What is your ethnicity? Please circle one of the following:

   African (please list country)
   ____________________________________________________________

   African American

   African Canadian

   African Caribbean (please list island)
   ____________________________________________________________

   African Central American (please list country)
   ____________________________________________________________

   African European (please list country)
   ____________________________________________________________

   African Native American (please list nation)
   ____________________________________________________________

   African South American (please list country)
   ____________________________________________________________

   Bi-racial: African American (please list ethnicity)
   ____________________________________________________________

   Caucasian American (please descent if known)
   ____________________________________________________________

   European (please list country)
   ____________________________________________________________
Ethnicity not listed (please list ethnicity/ethnicities)
____________________________________

4. What region of the United States were you raised? Please circle one of the following:

Northern Region  Southern Region  Eastern Region  Western Region
Mid West Region  North East Region  North West Region
South East Region  South West Region  Outside of the United States

5. Who were you raised by? Please circle one of the following:

Father  Mother  Father & Mother  Grandmother  Grandfather  Grandmother & Grandfather  Other ___________________________________________________

6. What ethnicity is your mother? ________________________________

7. What ethnicity is your father? ________________________________

8. What is the highest level of education that your parent(s) completed?

Mother:
______________________________________________________________________________

Father:
______________________________________________________________________________

Other (if applicable):
______________________________________________________________________________

9. What was your total household income growing up? Please circle one of the following:

Under $10,000-$19,999   $20,000 - $39,999   $40,000 - $59,999
$60,000 - $74,999   $75,000 - $99,999   $100,000 - $150,000   Over $150,000

10. Are you in a marriage relationship?
___________________________________________________

10a. What ethnicity is your spouse?
_______________________________________________________

11. Are you in a dating relationship?
_____________________________________________________

11a. What ethnicity is your mate?
_____________________________________________________


12. Have you ever dated outside of your ethnic group?
_____________________________________

12a. If yes, please name your mate’s/date’s ethnic group(s):
_____________________________________

13. How often do you look at African American television shows? Please circle one of the following:

1 Never  2 Almost Never  3 Sometimes  4 Often  5 Very Often

14. How often do you read African American magazines? Please circle one of the following:

1 Never  2 Almost Never  3 Sometimes  4 Often  5 Very Often

15. How often do you look at African American music videos? Please circle one of the following:

1 Never  2 Almost Never  3 Sometimes  4 Often  5 Very Often

16. How often do you attend African American organizational meetings, i.e. Black Student Association, NAACP, Urban League, Pan Hellenic Organizations? Please circle one of the following:

1 Never  2 Almost Never  3 Sometimes  4 Often  5 Very Often

17. How often did you view African American women in authoritative roles during your childhood, i.e. Teachers, Police Officers, Librarians? Please circle one of the following:

1 Never  2 Almost Never  3 Sometimes  4 Often  5 Very Often

18. How often do you view African American women in authoritative roles in adulthood? Please circle one of the following:

1 Never  2 Almost Never  3 Sometimes  4 Often  5 Very Often
APPENDIX D

RACIAL IDENTIFICATION FORMS AND SCORING SHEET

Instructions: Please tell us how much you personally agree or disagree with the beliefs and attitudes listed below by circling a number. There is no right or wrong answer. We want your honest opinion.

<table>
<thead>
<tr>
<th>I Totally Disagree</th>
<th>I Sort of Agree</th>
<th>I Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>Sort of True</td>
<td>Absolutely True</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. One or more of my relatives knows how to do hair. 1 2 3 4 5 6 7
2. When I was young, my parent(s) sent me to stay with a relative (aunt, uncle, grandmother) for a few days or weeks, and then I went back home again. 1 2 3 4 5 6 7
3. When I was young, I shared a bed at night with my sister, brother, or some other relative. 1 2 3 4 5 6 7
4. When I was young, my cousin, aunt, grandmother, or other relative lived with me and my family for a while. 1 2 3 4 5 6 7
5. When I was young, my mother or grandmother was the “real” head of the family. 1 2 3 4 5 6 7
6. When I was young, I took a bath with my sister, brother, or some other relative. 1 2 3 4 5 6 7
7. Old people are wise. 1 2 3 4 5 6 7
8. I often lend money or give other types of support to members of my family. 1 2 3 4 5 6 7
9. It’s better to try to move your whole family ahead in this world than it is to be out for only yourself. 1 2 3 4 5 6 7
10. A child should not be allowed to call a grown woman by her first name, “Alice.” The child should be taught to call her “Miss Alice.” 1 2 3 4 5 6 7
11. It’s best for infants to sleep with their mothers. 1 2 3 4 5 6 7
12. Some members of my family play the numbers. 1 2 3 4 5 6 7
13. I know how to play bid whist. 1 2 3 4 5 6 7
14. Most of my friends are Black. 1 2 3 4 5 6 7
15. I feel more comfortable around Blacks than around Whites. 1 2 3 4 5 6 7
16. I listen to Black radio stations. 1 2 3 4 5 6 7
17. I try to watch all the Black shows on TV. 1 2 3 4 5 6 7
<table>
<thead>
<tr>
<th>I Totally Disagree</th>
<th>I Sort of Agree</th>
<th>I Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>Sort of True</td>
<td>Absolutely True</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

18. I read (or used to read) Essence magazine. 1 2 3 4 5 6 7
19. Most of the music I listen to is by Black artists. 1 2 3 4 5 6 7
20. I like Black music more than White music. 1 2 3 4 5 6 7
21. The person I admire the most is Black. 1 2 3 4 5 6 7
22. When I pass a Black person (a stranger) on the street, I always say hello or nod at them. 1 2 3 4 5 6 7
23. I read (or used to read) Jet magazine. 1 2 3 4 5 6 7
24. I usually add salt to my food to make it taste better. 1 2 3 4 5 6 7
25. I know how long you’re supposed to cook collard greens. 1 2 3 4 5 6 7
26. I save grease from cooking to use it again later. 1 2 3 4 5 6 7
27. I know how to cook chit’lins. 1 2 3 4 5 6 7
28. I eat grits once in a while. 1 2 3 4 5 6 7
29. I eat a lot of fried food. 1 2 3 4 5 6 7
30. Sometimes I eat collard greens. 1 2 3 4 5 6 7
31. Sometimes I cook ham hocks. 1 2 3 4 5 6 7
32. People say I eat too much salt. 1 2 3 4 5 6 7
33. I eat chit’lins once in a while. 1 2 3 4 5 6 7
34. Most tests (like the SATs and tests to get a job) are set up to make sure that Blacks don’t get high scores on them. 1 2 3 4 5 6 7
35. Deep in their hearts, most White people are racists. 1 2 3 4 5 6 7
36. IQ tests were set up purposefully to discriminate against Black people. 1 2 3 4 5 6 7
37. Whites don’t understand Blacks. 1 2 3 4 5 6 7
38. Some members of my family hate or distrust White people. 1 2 3 4 5 6 7
39. I don’t trust most White people. 1 2 3 4 5 6 7
40. Most Whites are afraid of Blacks. 1 2 3 4 5 6 7
41. There are many types of blood, such as “high,” “low,” “thin,” and “bad” blood. 1 2 3 4 5 6 7
42. I was taught that you shouldn’t take a bath and then go outside. 1 2 3 4 5 6 7

83
<table>
<thead>
<tr>
<th><strong>I Totally Disagree</strong></th>
<th><strong>I Sort of Agree</strong></th>
<th><strong>I Strongly Agree</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td>Sort of True</td>
<td>Absolutely True</td>
</tr>
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<td>1</td>
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<td>3</td>
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<td>6</td>
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<tr>
<td>7</td>
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</tr>
</tbody>
</table>

43. Illnesses can be classified as natural types and unnatural types. 1 2 3 4 5 6 7
44. I believe that some people know how to use voodoo. 1 2 3 4 5 6 7
45. Some people in my family use epsom salts. 1 2 3 4 5 6 7
46. I know what “falling out” means. 1 2 3 4 5 6 7
47. Some old Black women/ladies know how to cure diseases. 1 2 3 4 5 6 7
48. Some older Black women know a lot about pregnancy and childbirth. 1 2 3 4 5 6 7
49. Prayer can cure disease. 1 2 3 4 5 6 7
50. I have seen people “fall out.” 1 2 3 4 5 6 7
51. If doctors can’t cure you, you should try going to a root doctor or to your minister. 1 2 3 4 5 6 7
52. I have “fallen out.” 1 2 3 4 5 6 7
53. I believe in heaven and hell. 1 2 3 4 5 6 7
54. I like gospel music. 1 2 3 4 5 6 7
55. The church is the heart of the Black community. 1 2 3 4 5 6 7
56. I am currently a member of a Black church. 1 2 3 4 5 6 7
57. I have seen people “get the spirit” or speak in tongues. 1 2 3 4 5 6 7
58. I believe in the Holy Ghost. 1 2 3 4 5 6 7
59. I went to a mostly Black elementary school. 1 2 3 4 5 6 7
60. When I was young, I was a member of a Black church. 1 2 3 4 5 6 7
61. I grew up in a mostly Black neighborhood. 1 2 3 4 5 6 7
62. The biggest insult is an insult to your mother. 1 2 3 4 5 6 7
63. I went to (or go to) a mostly Black high school. 1 2 3 4 5 6 7
64. Dancing was an important part of my childhood. 1 2 3 4 5 6 7
65. I used to sing in the church choir. 1 2 3 4 5 6 7
66. When I was a child, I used to play tonk. 1 2 3 4 5 6 7
67. When I was young, I used to jump double-dutch. 1 2 3 4 5 6 7
<table>
<thead>
<tr>
<th>I Totally Disagree</th>
<th>I Sort of Agree</th>
<th>I Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not True At All</td>
<td></td>
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<td>1</td>
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<td>6</td>
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<tr>
<td>7</td>
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</tbody>
</table>

68. I currently live in a mostly Black neighborhood. 1 2 3 4 5 6 7
69. I used to like to watch Soul Train. 1 2 3 4 5 6 7
70. What goes around, comes around. 1 2 3 4 5 6 7
71. There’s some truth to many old superstitions. 1 2 3 4 5 6 7
72. I avoid splitting a pole. 1 2 3 4 5 6 7
73. When the palm of your hand itches, you’ll receive some money. 1 2 3 4 5 6 7
74. I eat black-eyed peas on New Year’s Eve. 1 2 3 4 5 6 7
Racial Identity Status Self-Assessment

Directions: Place a check by only those statements that are true or mostly true for you.

1. _____ My race does not play a significant role in my everyday life.

2. _____ I have had the experience of feeling guilty for having denied the significance of race in a situation.

3. _____ I try to learn all I can about my race.

4. _____ I feel a sense of pride about my race.

5. _____ My race has little to do with my sense of happiness and well being.

6. _____ I can recall receiving some historical information (positive or negative) about my race that had a profound impact on me.

7. _____ I can name recent incidents or examples of privilege and entitlement that are afforded to White Americans and not to People of Color.

8. _____ I am at peace about my racial identity and do not feel the need to be defensive about racial matters.

9. _____ I value other aspects of my life such as religion, lifestyle, social status, career, more than I do my race.

10. _____ I have been confused, alarmed or depressed over a racial issue.

11. _____ I regularly attend political and cultural meetings that focus on racial issues.

12. _____ I believe that racism is part of the American experience and I work to erase its presence.

13. _____ I have not given much thought to racial issues or concerns.

14. _____ I have been angry at another race for causing social problems.

15. _____ I often read about the history of my race.

16. _____ I insist on being acknowledged as a member of my race.

17. _____ I have at times been acutely aware of the fact that race matters even in a democratic society.
18._____ As a result of a racial incident or some information about race, I have felt energized to do something about racial issues on either societal or personal level.

19._____ The décor of my home reflects my race.

20._____ I recognize and appreciate other racial heritages and believe their contributions and achievements are of value to the American experience.

21._____ My race has been more of a problem to me than a blessing.

22._____ I feel an overwhelming love and attachment to my race.

23._____ I believe we should strive for a “colorblind” or “colorless” society.

24._____ I believe some members of my race are not fully racially identified.

25._____ I believe we should all consider ourselves American regardless of race.

26._____ I associate primarily with people from my own race.

27._____ I have often felt pride when someone of my race makes a significant achievement even when I do not personally know the individual.

28._____ In today’s society too much is made about racial differences.

29._____ I have had the experience of being angry about how my race has been represented in the media.

30._____ I take the opportunity to challenge racial injustice whenever it happens.
Racial Identity Status Self-Assessment (RISSA) Scoring Sheet

**Directions:** Circle the numbers you have checked. After you have completed circling the numbers for the items you checked, add the columns for your score. The number represents your endorsement of attitudes represented by the Status Attitude described below.

<table>
<thead>
<tr>
<th>Status 1 Attitudes</th>
<th>Status 2 Attitudes</th>
<th>Status 3 Attitudes</th>
<th>Status 4/5 Attitudes</th>
</tr>
</thead>
<tbody>
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**Status 1:** Describes a level of unawareness of self as a racial person or low importance given to race matters in one’s life.

**Status 2:** Describes a state of awakening as a racial person.

**Status 3:** Describes a strong identification with one’s race and/or a rejection of privileged whiteness.

**Status 4/5:** Describes an integration of race in one’s life and multicultural attitudes.
Social/Behavioral IRB – Expedited Review  
Continuing Review Approved  

**NOTICE TO ALL RESEARCHERS:**

*Please be aware that a protocol violation (e.g., failure to submit a modification for any change) of an IRB approved protocol may result in mandatory remedial education, additional audits, re-consenting subjects, researcher probation suspension of any research protocol at issue, suspension of additional existing research protocols, invalidation of all research conducted under the research protocol at issue, and further appropriate consequences as determined by the IRB and the Institutional Officer.*

DATE: February 17, 2009

TO: Dr. Murray Millar, Psychology  
FROM: Office for the Protection of Research Subjects  
RE: Notification of IRB Action by Dr. J. Michael Stitt, Chair  
Protocol Title: **Female Facial Attraction**  
Protocol #: 0712-2572

Continuing review of the protocol named above has been reviewed and approved.

This IRB action will reset your expiration date for this protocol. The protocol is approved for a period of one year from the date of IRB approval. The new expiration date for this protocol is February 2, 2010.

**PLEASE NOTE:**  
Attached to this approval notice is the **official Informed Consent/Assent (IC/IA) Form** for this study. The IC/IA contains an official approval stamp. Only copies of this official IC/IA form may be used when obtaining consent. Please keep the original for your records.

Should there be *any* change to the protocol, it will be necessary to submit a **Modification Form** through OPRS. No changes may be made to the existing protocol until modifications have been approved by the IRB.

Should the use of human subjects described in this protocol continue beyond February 2, 2010, it would be necessary to submit a **Continuing Review Request Form** 60 days before the expiration date.

If you have questions or require any assistance, please contact the Office for the Protection of Research Subjects at **OPRSHumanSubjects@unlv.edu** or call 895-2794.
REFERENCES


Development of the MacBrain Face Stimulus Set was overseen by Nim Tottenham and supported by the John D. and Catherine T. MacArthur Foundation Research Network on Early Experience and Brain Development. Please contact Nim Tottenham at tott0006@tc.umn.edu for more information concerning the stimulus set.


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VITA

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Special Honors and Awards:
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Thomas Wilson Service Award-Alliance of African American Professionals
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Society of Multivariate Experimental Psychologist, Student Scholar
2009 Nevada State Psychological Association Research Award
2009 Student Award, Research and Travel Grant Winner
Organization of Chinese American Scholarship
NAACP Agnes ones Jackson Scholarship
Regent Linda Howard Scholarship Winner
NBGSA National Research Award Winner
Psi Chi Regional Research Award Winner

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Thesis Title: African American and Caucasian Males' Evaluation of Racialized Female Facial Averages

Thesis Examination Committee:
Chairman, Murray Millar, Ph.D.
Committee Member, Colleen Parks, Ph.D.
Committee Member, Wayne Weiten, Ph.D.
Graduate Faculty Representative, Kathleen Ja Sook Bergquist, J. D., Ph.D.