Choosing a mate: Preferences in choosing a dating partner based on cultural norms versus

attractiveness ratings

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Abstract

When an individual looks for a partner, he/she tends to look at factors such as attractiveness, emotional stability, agreeableness, social position and dominance (Kenrick et al., 1993). Throughout history, power and prestige have been associated with a white phenotype (Frost, 1986), and this bias affected attraction and dating (Lewis, 2011). However, the approval of interracial dating has been on the rise since the 1950's (Carroll, 2007). Despite increased approval, interracial relationships are still occurring less than expected. White individuals have the largest bias when selecting a partner or contacting an individual of another race (Mendelsohn et al., 2014). The Midwest has the lowest percentage of interracial marriages in the United States (Passel et al., 2010). This study sought to understand attractiveness and dating in out-group settings; the research investigated whether individuals found one attractive but was unwilling to date them because of cultural norms. The study found that attractiveness and dating scores were correlational; the mate in-group bias was occurring from initial contact. In addition, males low ranked the darkest face in the study when they selected that they were worried about societal approval. Finally, both conservative males and females were significant for low-ranking the darkest faces in the study. The research found that men tended to have a larger out-group bias when selecting a mate than females did.

Keywords: attractiveness, dating, out-group mating, in-group bias

Introduction

In today's society, racial tensions are rising. As the tensions rise, a curiosity arises about these biases throughout American history. The Civil Rights Movement was fifty years ago; yet, racial tension has not ceased. This study intends to investigate an inner bias in choosing a mate based on race. The study will analyze who an individual finds attractive, then compare who they find attractive to who they prefer in a potential mate. In a study by Alhabash et. al. (2014), an analysis of online dating profiles was done. It was discovered that white dating profiles were the preferred dating profiles in rankings by both African Americans and whites. This phenomenon continues with white being the preference in dating partners. However, limited research has been done to evaluate how attractiveness plays into this preference. This study seeks to understand the effect that cultural norms have on attractiveness scores and dating preferences. The purpose of this study was to examine the relationship between an individual's perception of attractiveness of members of the opposite sex versus the individual's dating preferences, with focus on the influence of racial/ethnic factors on a participant's responses.

The following research questions were examined:

1. Does the mate an individual chooses correlate with the individuals they find attractive?

2. Is there a possible cultural norm that pressures individuals into dating people who are similar to themselves (such as skin color, political affiliation, society approval)?

3. Are there sex differences when selecting an ingroup or outgroup partner?

Literature Review

Biological Origins

Across the globe, the first difference many notice in the world's populations is that of skin color. By its simplest definition, skin is a protective barrier for the human body. This barrier

differs for each individual. Human skin regulates body temperature and serves as an initial

impression of the health of individual (Jablonski, 2004). Skin is comprised of two major layers.

The outer layer, the epidermis, and the deep inner layer, the dermis. In the epidermis lies

melanocytes; within these melanocytes lies melanin, the cause of the pigment in humans. In

darker skin, melanosomes are large and less clumped; while melanosomes are smaller and more

crowded in lighter skin tones (Jablonski, 2004).

After the death of Neanderthals, the rise of Homo sapiens began. Other forms of ancient

humans began to die off, yet Homo sapiens prevailed. Their origin began in Africa, and they

spread across the globe (Coolidge & Wynn, 2018). However, these early humans were missing

the coats present on apes that protected them from ultraviolet radiation (UVR) (Jablonski, 2004).

In response, melatonin increased as hair loss of the species continued; therefore, early species

were darkly pigmented. By natural selection, the human's species maintained a darker pigment.

This pigment allowed for the species to be better protected from harmful rays of the sun

(Jablonski, 2004). The darker epidermis allowed protection of sweat glands on early Homo

sapiens (Jablonski & Chaplin, 2000). In terms of natural selection and reproduction, skin with

lots of melatonin protected against the UV induced photolysis of folate (Jablonski & Chaplin,

2000).

The lightening of skin is correlated with the location of the individual. Those closer to the

equator have darker tones than those closer to the poles (Jablonski, 2004). It's established that

this lightening is not due to the heat load; however, it is due to the UVR exposure of the skin

(Jones, Lucock, Veysey, & Beckett, 2018). The generation of vitamin D is dependent on the

skin's ability to regulate the UVR exposure. Vitamin D synthesis occurs when skin is exposed to

ultraviolet radiation. Higher latitudes experience less UV radiation. Melanin is a cell in the skin

that uptakes the UV to reduce damage to other cells, i.e. sunburns. The amount of UV melanin is able to uptake increases for the northern populations to maximize the radiation in the lower UV regions (Webb, 2006). In regions closer to the equator, melanin takes up less radiation to prevent damage to other cells. The amount of melanin in the skin also dictates skin color, creating lighter skin farther away from the equator to maximize uptake and darker skin around the equator to minimize damage (Webb, 2006). These dark and light skin tones help to regulate the exposure to the sun for vitamin D purposes; while decreasing the amount of free radical uptake (Jones et al., 2018). These changes occurred as humans began traveling to different areas of the world with varying UVR exposures. It was a very gradual selection to increase the regulation of the human body (Jones et al., 2018).

The origination of differing skin color occurred by natural selection. Survival is not the key factor is the selection of lighter skin pigmentation; rather, reproductive success is the predominant reason. Many of the significant effects of UV rays occur after reproductive ages and are rarely fatal. It has no effect on fitness or reproductive success (Blum, 1961). As humans began to migrate out of tropical and high UV index regions, the necessity for depigmentation occurred. For reproductive success, the lightening of skin occurred to allow greater amounts of D_3 synthesis. This pre-vitamin is necessary in pregnancy and lactation, suggesting as to why females may have lighter skin tones (Jablonski & Chaplin, 2000). Another necessity for vitamin D_3 synthesis is the production of folate, produced into folic acid within the body (Jablonski & Chaplin, 2000). Folic acid plays a key role in the development of the nervous system in fetus and infant stages (Black, 2008). Some disorders, such as *anencephaly* and *spina bifida,* are particularly common within lighter pigmented individuals; these are birth defects affecting the central nervous system (Jablonski & Chaplin, 2000). Folic acid also impacts another key element

to reproductive success—spermatogenesis. In a study by Cosentino, Pakyz, and Fried, pyrimethamine was hypothesized to be a contraceptive for men due to its antifolate behavior; therefore, the blockage of folic acid affected the reproductive success of the male (1990). Since folic acid production can be negatively affected by UV radiation, the protection and prevention of photolysis is essential to reproductive success (Jablonski & Chaplin, 2000). In Southern hemisphere, prey was more abundant and the need to travel was minimal. As humans moved north, women faced much greater competition for a mate because of the increased need to travel for the hunt. Mates were less likely to remain in one place; therefore, selection of a mate for a female became increasingly difficult (Frost, 2008). It is possible that humans favored a paler skin tone due to the ability for vitamin D synthesis, and the ability to synthesize more vitamin D_3 while pregnant (Jablonski & Chaplin, 2000). Since the synthesis is detrimental to health, a lighter skin tone may have been preferred for reproductive success (Frost, 2008, Jablonski & Chaplin, 2000). Modernly, some cultures practice limited UV exposure for women of the population. This would not have any effect on the lightening of skin tone unless women with lighter skin were more reproductively successful. This practice could have been devised by cultural measures but now reinforced by sexual selection (Jablonski & Chaplin, 2000). There is no concrete reasoning as to why humans favored the lighter skin tone and why sexual selection impacted evolution of skin color at such an increasing fast manner at this time.

Mate Selection/Dating Preferences

As part of sexual selection, a potential mate is chosen based on phenotypic traits. The process of human mate selection is similar to many other animals; there are certain traits that are sought out by an individual as ideal for a mate. The human species often implicate a process called "assortative mating" when selecting a sexual partner—the selection of a mate based on

similarities (Buss, 1985). Assortative meeting, or seeking a partner which similar traits, is the most common way to choose a partner (Karp, Jackson & Lester, 1970). Humans use two basic principles in assortative mating: character-specific assortment and cross-character assortment (Buss & Barnes, 1986). Character-specific is choosing a mate based on expressed attributes, i.e. intelligence or height. Cross-character assortment mating based on comparable principles, yet different characteristics (Buss & Barnes, 1986). The most common similarities to oneself reflected in a mate are typically as follows: age, race, ethnic background, socioeconomic status, proximity to one another, and religion. Another common similarity is for mates to have common world-views (Buss, 1985).

　　Similarities are not the only indicator of a successful relationship. There are many individual characteristics that reoccur across human interaction. Some of the highest favored traits in a mate are attractiveness, emotional stability, agreeableness, social position, and dominance (Kenrick, Groth, Trost & Sadalla, 1993). Emotional stability and agreeableness correlate directly with raising offspring successfully. Social position and dominance correspond with protecting offspring and allowing offspring to live longer. Those with more resources and more dominance tend to be able to better support their offspring in today's society (Kenrick, et al., 1993). Reproduction differs depending on sex—while males are able to impregnate as many females as they can court, females can only mother a certain amount of children in their lifetime. Since men must court the female, this creates a sexual environment based upon winning the female's affection. To many potential mothers, the prospect of resources to raise the children is a priority (Betzig, 1987). Resources are not a necessity in mating; many women are able to reproduce without such resources. However, those who reproduce with resources tend to have an advantage (Buss, 1991).

It is a common trend in sexual selection that an individual who is rated highly in a trait category will match with someone who is also desirable in that category. For example, attractiveness is a highly sought after human trait. An individual with high attractiveness is able to seek another individual with high attractiveness (Buss, 1985). An individual's self-rating for attractiveness will correspond with her/his ratings of attractiveness in a future mate. If a woman sees herself as attractive and educated, she is able to successfully compete for a partner with the same attributes (Kenrick et al., 1993).

Not every mate expresses every desirable trait. Therefore, in many cases, an individual may have to settle for the less than ideal mate. Many times, the individuals settling with the undesirable mate are often the ones who do not express the optimal traits themselves. If he/she does not express these quintessential characteristics, he/she may also never find a mate (Buss, 1985). Humans may view a mate as undesirable if they express low emotional stability, low agreeableness, and less intellect openness have been directly correlated to less satisfaction in a marriage (Botwin, Buss & Shackelford, 1997).

In this generation, the Internet and online dating profiles have become a prominent icon in finding a mate. A study by Whyte and Torgler analyzed preferences versus choice in online dating profiles (2017). Australian dating profiles were analyzed in this study; specifically, demographics and dating preferences were observed. Most individuals chose a mate based on age, resources, and environmental constraints. While observing online dating profiles, researchers noticed a majority of people leaving their preferences to find a potential mate. Individuals would reach out to those that did not perfectly match their desires. Although they listed their preference, individuals tended to keep options open in choosing a mate (Whyte & Torgler, 2017).

Social Status and Skin Color

        With a history of slavery and discrimination, a status was added to skin color (Hunter, 2002). This association can be drawn back to the days of imperialism, where the White man stood upon his throne in history (G. P. D., 1975). Imperialism can be defined by the settler tendencies of Western Europeans through regions such as Africa, South America, and Oceania (Adas, 1998). The Western European powers were stronger and more organized than other nations, allowing them to gain control of other lands (Bryant, 2006). Throughout history, the White man is hungry to expand power and takes over many lands belonging to those of darker skin. This created a sense of entitlement and righteousness within the White man (G. P. D., 1975). Many of the Europeans conquering Africa were actually middle-class: missionaries, businessmen, officials, etc. (Stone, 1988). Western Europe imperialism created disconnect between the natives and the conquerors (Martin, 1924).

        The entitlement of the White man continued and was quite prominent during slavery in the United States (Keith & Herring, 1991). During slavery, those with the darker skin received the most labor intensive tasks, while those with White skin heritage were given the more "prestigious" tasks—such as cooking, cleaning, and jobs more in the presence of their masters. The darker the skin, the more inferior the slave was to the master—keeping in mind that most mulattos were actually children of their masters (Keith & Herring, 1991). Throughout the twentieth century, Black became a unifying term for both mulattos and darker skin. Even in today's society, skin color has a significant effect on opportunities given in the United States. Race has a larger effect on social outcome than parental economic status (Keith & Herring, 1991). In a study by Maddox and Gray, researchers recruited students from a university of both African American and White descent (2002). Participants were then quizzed on their knowledge

of racial and ethnic groups. Each participant page at the ethnic group listed at the top and then

opportunity to list positive, neutral, and negative characteristics one could associate. Each

participant listed as many social groups as they could. Maddox and Gray found that more

negative traits were associated with Black Americans (2002). The darker skinned African

Americans were more closely related to the negative connotations that come with skin color,

while lighter African Americans were more positively reviewed. Darker skin was more socially

associated with welfare and criminal activity (Maddox & Gray, 2002). In another study by

Iceland and Wilkes, the 2000 census was used to analyze the socioeconomic status of African

Americans, Hispanics, Asians and Pacific Islanders, and non-white Hispanics. The study found a

high concentration of colored individuals in lower socioeconomic status. The study also found

that this was not changing in the 1990-2000 period (Iceland & Wilkes, 1996).

Racial Relations

With the rise of the modern world came the rise of the slave trade; the ascent of

capitalism left a gap in the work force. Africans were forced from their home land into mines and

other industrial work places; many of these individuals were forced into deadly working

conditions. Many European nations were participating in the trade in the early years (Rawley &

Behrendt, 2005). The United States entered the slave trade between the years of 1776 and 1820;

investors in the state of Rhode Island were actively participating. At this time, New England rum

was traded for human lives (Graden, 2018). In 1807, there was a halt to the slave trade; it was

now outlawed. The United States continued participation, signing on U.S. captains and sailors to

transport the slaves. Between the years of 1820 to 1867, over two million African slaves were

transported onto American soil. The southern states maintained the business of the slave trade,

despite its illegal status (Graden, 2018).

Although the northern States and the southern States of the Union had their differences, the unresolved one became the issue of slavery (Hattaway & Jones, 1991). Despite common belief that north wanted to abolish slavery, the largest debate was over expansion of slavery into the new territories of the United States. Eleven of the southern states succeeded from the Union over the issue, and the north fought for their reentry into the Union. The Civil War spanned from 1861 to 1865. President Abraham Lincoln gave the Emancipation Proclamation speech; this proclamation freed slaves as of January 1st, 1863 (Jones, 2018). In 1865, the south surrendered and peace between the two sides began (Hattaway & Jones, 1991).

Although slavery had been abolished, copious amounts of American citizens were not ready to accept the new fate of colored individuals—freedom. Laws were formed to prevent the integration of African Americans into White society; these laws became formally known as "Jim Crow Laws" (Smythe, 1949). The name was modeled after a man by the name of Thomas "Daddy" Rice, who played a character in the 1830s-1840s that stereotyped White views of the African Americans (Guffey, 2012). The Jim Crow era begins in the 1890's and continues in the 1960's. These laws exploited African Americans for labor, often times reflecting slavery itself. Jim Crow laws also enforced segregation between African Americans and Whites (Gavins, 2004). Places of business and schools were segregated into "Black" and "White" areas (Gavins, 2004). The most common fight was that "segregation is not discrimination", yet many facilities were separate but unequal (Asch, 2015). On February 14th, 1950, the US Court of Appeals found that school segregation was not discriminatory (Asch, 2015). Segregation continued with riots and uproar. In 1964, the Civil Rights Act was passed and no longer could an individual be discriminated against by sex, race, or ethnicity (Tomaskovic-Devey, Stainback, Taylor, Zimmer, Robinson, & McTague, 2006).

Race has been a looming factor over American culture; beginning with the slave trade and Civil War—pursued by Jim Crow and segregation. The boycotts on buses and in the Civil Rights era began in the mid-1950S. The early 1960s brought political equalization and voter registration for African Americans. They had gained these societal privileges; however, hostility still existed for those of color (Blauner, 1989). Towards the end of the 1960s, the Civil Rights movement began to get more violent as frustrations rose. This violence rose to a new trend in the colored population. The population created a culture and an individual identity. This identity was called Black Power. The Black Power movement was largely due to African Americans feeling the pressure to conform themselves to White culture (Blauner, 1989). The Civil Rights movement trudged on, and African Americans kept approaching equality. As equality neared during the Civil rights era, tensions rose even more. At the forefront of the movement was the police force. African Americans viewed the police as racist, while Whites viewed them as a "thin blue line" protecting them. The believed racism of law enforcement only led African Americans to feel more endangered within the United States (Blauner, 1989).

Since the Civil Rights movement, the United States still experiences modern day racism. This racism does not cease with African Americans; racism can also be seen as related to Islam and anti-immigrant phobias (Cornell, 2018). Sixty percent of the White US population believe the conversation is getting too much attention, while only thirteen percent of Blacks think the matter is over discussed (Muhammad, 2018). Modern day racism can be fueled by multiple factors. First, many White children grew up segregated from their darker skin counterparts (Cornell, 2018). This modern-day racism could also be due to a phenomenon called White rage. Many White Americans could be threatened by the advancement of African Americans (Newlove & Bitz, 2018). This dates back to the Civil Rights era, when it was illegal to advertise

for African American job opportunities in the South, in the fear of Black advancement. Entire

school districts attempted to shut down instead of integrate and feed Black advancement

(Newlove & Bitz, 2018).

The historical tension between races has caused minority groups to be less trusting of

majority groups. In the United States, the White population is viewed as the majority (Smith,

2010). In a survey by Smith, fifty-one percent of the majority—or White population—were

found to be distrusting of minority populations. In contrast, eighty-one percent of African

Americans were found to be distrusting of the majority population. African Americans reported

they found the majority to be partisan and unhelpful to their population (2010). Today, 75% of

African Americans self-report being discriminated against in today's society (Borrell, Kiefe,

Williams, Diez-Roux, & Gordon-Larsen, 2006).

Dating Outside Race

Interracial relationships between African Americans and Whites within the United States

have been tainted by a history of mistrust between races (Harris & Kalbfleisch, 2000). However,

approval ratings of these relationships have been on the incline. In 1958, only four percent of

individuals approved of an interracial relationship. By 1983, fifty percent were accepting of these

affairs (Carroll, 2007). The acceptance continues to increase into the twenty first century. In

2007, seventy seven percent of Americans were approving an interracial relationship.

Nonetheless, seventeen percent of the population still disapproved of the interaction despite

being nearly forty years after the Civil Rights movements (Carroll, 2007).

According to Passel, Wang, and Taylor (2010), only 14.6% of individuals were dating

outside their own race in 2008. In a survey by Todd, Mckinney, Harris, Chadderton, and Small

(1992), 61% of individuals reported being willing to date outside their own race. In this statistic,

22% were Black males, 9% were Black females, 40% were Asian females, and 20% were Asian males. The other 30% were White and Hispanic and they showed no significant difference by gender (Passel et al, 2010). From these numbers, we can see that Black males and Asian individuals are much more likely to date outside their race than any other race. In the Mendelson et al. (2014) study, dating profiles and messages were obtained from an American dating site. These profiles and messages were then analyzed by researchers, including demographics and preferences in dating. The analysis of profiles found that Black individuals seemed increasingly likely to take an interest in online interracial dating. Likewise, men were more likely to look outside their own race for a relationship than females (Todd et al, 1992). Black women were less likely to be interested in dating outside of their racial group (Murstein, Merighi, & Malloy, 2001). Thirty-five percent of young Black women stated they would be willing to date outside their race, while forty-four percent said they would be absolutely unwilling (Todd et al., 1992). Younger generations are much more likely to date interracially (Wilson, McIntosh & Salvatore, 2007). In the modern day, statistics for interracial equivalence and equality have leveled out compared to the past few decades. It is evident that this type of change will take many generations to show significant change (Mendelson et al., 2014).

Despite the distrust, African Americans were much more likely to respond to Whites on dating websites. Thirty-percent of African Americans reciprocated the attention shown to them by a White individual on a dating website. However, only five percent of Whites reciprocated attention shown to then by an African American (Mendelsohn et al., 2014). In particular, the White population demonstrated the most significant bias. These individuals claimed to be indifferent, yet eighty-five percent of their initiated contacts were to Whites and three percent of their contacts were to Blacks (Mendelsohn et al., 2014). The individual could possibly be scared

of job loss, being disowned by their own parents, or fear of public and friend opinion. All of these factors could contribute to the limited contact (Harris & Kalbfleisch, 2000). Another reason for the unlikelihood of a White reciprocating or initiating attention with a minority individual could be the ingroup bias. An individual is much more likely to favor those similar to them rather than an outgroup (Alhabash, Hales, Baek, & Oh, 2014).

Dating outside of race also comes with many cultural norms. A study was done by Shenhav, Campos, and Goldberg (2017) that analyzed individual's cultural norms and dating preferences. In the study, 628 students participated. They had to be unwed, heterosexual, and identify as either Asian, Latino, or European. The generational status of these individuals was also analyzed. Each student completed an hour long Qualtrics survey questioning her/his interracial/interethnic relationship status. Questions were also asked about their parent's approval. In the study, Shenhav et al. found that there was a significant difference in parent's approval of an intercultural relationship. They also found that interracial and intercultural relationships faced the same issues. Individuals were rated as having much higher parental disapproval than their own disapproval of being in an interracial/intercultural relationship. In the study, 21.7% of the participants reported being involved in an intercultural relationship; 27.1% of them had parental issues with the relationship that remain unsolved (Shenhav et al., 2017). In another study done by Martin, Bradford, Drzewiecka, & Chitgopekar (2010), young White Americans were analyzed in their dating trends and if they differed from a study done by Philip Lampe in the 1980's. Within the study, a questionnaire was completed about interracial dating and why they dated that individual. The study found that forty percent of individuals who completed the survey had participated in an interracial relationship. That number suggests that the likelihood of interracial dating has not changed in twenty years, comparing it to the similar

study done by Lampe (as cited in Martin et al, 2010). The study found no significance between the likelihood of men or woman being more likely to participate in interracial relationships. The reasons for dating interracially have also not changed in twenty years since the Lampe study. The three main reasons for dating interracially was "liking the person", "sexual", and "curiosity". "Liking the person" was a reasoning given across the board for dating the individual; however, "curiosity" was a term used exclusively for the colored population. Individuals participating in this study also answered why they would not date interracially. The top three reasons of these individuals were lack of contact, lack of interest, and lack of acceptance (Martin et al., 2010).

Interracial Marriages

Only one percent of marriages in 1970 were interracial, but the number increased to five percent by 2000; interracial couples are still the anomaly (Lee & Edmonston, 2005). A portion of society still rejects the idea of marrying outside one's own race. There is a higher likelihood of an African American marrying a White rather than a White marrying an African American (Lee & Edmonson, 2005). In that statistic, Black women less likely to marry an out-group member. The rates for intermarriage in the White population is relatively the same for male and female (Mendelsohn et al, 2014). The interracial marriage statistics closely resemble the interracial dating statistics, suggesting that the groups interested in dating out group members have less difficulty with the marriage commitment. The question remains of why those who chose to marry an out-group member. Instead of suggesting that the couple avoids their differences, there is a hypothesis that a couple bonds by this difference. It is called racial motivation theory; a theory that hypothesizes marriages between an interracial couple occur because of their differences (Harris & Kalbfleisch, 2000).

It is much less likely for an African American woman to marry outside of race than an African American male to marry outside of race (Mendelsohn et al., 2014). Although the exact reason as to why this occurs is undetermined, Tucker & Mitchell-Kernan (1990) completed a study analyzing Black American Interracial Marriage. They used a 1980 Census report and analyzed the results based on race, age, number of spouses, and region of birth. They found that African American women who were in an interracial marriage were also more accepting of the other variables, such as age, region, and number of spouses. Also, the region of birth also highly correlated how they accepted interracial marriages and the likelihood of an interracial marriage (Tucker & Mitchell-Kernan, 2014). In Tucker & Mitchell-Kernan study (2014), researchers found that the Western culture of the United States was much more likely to accept interracial marriage and have a higher interracial marriage rate. In 2010, western regions of the United States tend to have higher interracial marriages (22%), while the Midwest has the least amount of interracial marriages (11%) (Passel et al., 2010).

Attractiveness and Race

The idea of beauty is actually a mathematical concept. Beauty is found to be an average value of facial measurements. Those that are closest to the average are found to be the most attractive (Langlois & Roggman, 1990). In the study done by Langlois & Roggman, they surveyed attractiveness of composites of multiple race and ethnicities. The researchers then merged faces together to create an average face; they began combining sixteen faces into an average, then they made an average of thirty-two different faces. Langois & Roggman found that the computerized averaged faces were found to be statistically more attractive than just the individual faces, proving that beauty is based on an average appearance.

Beauty is also based on facial symmetry. A study done by Zaidel, Aarde, and Baig (2005) surveyed college students at Univeristy of California Los Angeles. The study utilized pictures from Psychological Image Collection at Stirling, UK and asked participants for ratings on each face. The researchers found a correlation between the symmetry of the face and the perceived attractiveness in both male and female faces (Zaidel et al., 2005). Another study surveyed college students about perception of beauty. In this study, faces were modified in their symmetry. Then, the researchers presented the different faces to the participants. They found a statistically significant correlation between the symmetry of the face and the attractiveness rating. Participants in the study preferred the more symmetric face (Rhodes, Proffitt, Grady, & Sumich, 1998).

In a study done by Murstein, Merighi & Malloy (2001), interracial couples were analyzed using a questionnaire. Then, the researchers introduced judges of each race and gender to analyze couples in the study. Each judge was assigned ten couples. One Black man, one Black woman, one White man, and one White woman were all present to judge without knowing which participants were a couple. One of the aspects that the judges rated on was the attractiveness of each individual in the study. The leading variable when choosing a mate was the attractiveness of the individual, and almost no one surveyed viewed their partner as unattractive that participated in the study. Participants viewed themselves as having similar attractiveness to their partners. However, there was significance between a Black man being more attractive than their White female counterparts, according to scores by the recruited judges (Murstein et al, 2001).

Historically, males have found women with high eyebrows, large eyes, high cheekbones, and a narrow face to be more attractive. These are all traits that are customarily associated with White women (Frost, 2008). Females prefer males that exhibit height—a characteristic

commonly associated with masculinity (Pawlowski & Jasienska, 2005). Females also prefer a male with exaggerated male traits when they are most likely to conceive; masculinized faces are preferred (Penton-Voak & Perrett, 2000). In a study done by Cunningham, Barbee, and Pike, researchers found that females indicated attractiveness of males by wider eyes, prominent cheek bones, high definition of the chin and a wide smile (1990). Males in the underweight or overweight ranges were not scored as attractive (Singh, 1995). Another large determinant of male attractiveness is the waist to chest ratio (Maisey, Vale, Cornelissen, & Tovee, 1999). Another indicator of attractiveness is neoteny. Men are preferred to look more mature (Penton-Voak, 2000); African American women are viewed as more mature and masculine than female White faces (Lewis, 2011).

A study by Lewis tested the attractiveness of Black, White, and mixed individuals (2011). The researchers used photos from a social media website and tested participants on who they found to be attractive. Male photos were shown to females, and female photos were shown to males. They found that Black males were rated as more attractive than White males; however, White females were found to be more attractive than Black females (Lewis, 2011). Women are associated with lighter skin tones in all races (Frost, 1986). Biologically, the preference for White skin in many cultures is not realistic (van den Berghe & Frost, 1986). In many cultures, such as subtropical and tropical regions, lighter skin is actually carcinogenic. However, lighter skin is associated with power, wealth, and prestige. It is the skin color of those conquering powers from the European regions. European colonization created a suppression for people of color. This trend is widespread, extending far past the borders of the United States. It also creates a bias and cultural preference towards the lighter skin race (Frost, 1986).

The willingness to date an individual outside of race is positively correlated with the attractiveness of the individual. The more attractive the out-group party is seen, the more likely they will receive attention from a member of another race (Wilson et al, 2007). Interestingly, Black males in interracial relationships with a White individual were rated more attractive than their counterparts (Murstein et al, 2001).

Individuals of African American descent are discriminated against across the United States; however, a lighter tone of their dark skin may allow for less prejudice (Hunter, 2007). This concept is coined as "colorism"—when African Americans see more advantage for being a lighter skin tone. As an example, an African American of darker descent may earn less money per hour than an African American of lighter skin tone, simply because the hue of their skin (Hunter, 2007). In a study by Alhabash et al. (2014), researchers asked participants to review profiles of individuals and rate them. The individuals rated the mock profiles on a seven-point scale analyzing genuineness, kindness, warmness, and trustworthiness (Alhabash et al., 2014). The participants were also asked what action they would engage in with the person featured on the profile, ranging from chatting to relationship interest. Any profile resembling a White individual received higher ratings on attractiveness with a stereotype congruence. The study then attempted to modify the profiles with stereotypes. When they modified the White profiles to have stereotypically Black attributes, they found that the profile received lower rating. However, when they modified a Black profile to have historically White attributes, they found that individuals preferred the profile of a White individual with Black attributes (Alhabash et al, 2014).

Beauty of Mixed Individuals

With the introduction of interracial relationships into society, the number of biracial children increases. Since historically White phenotypes have been favored, mixed race children bring an interesting concept. In records, courts of law have been recorded as using a "one drop rule". In this rule, any drop of African American blood makes an individual an African American (Khanna, 2010). Even though this method is no longer used, biracial children are most likely to identify as an African American. Increasingly, individuals take upon a biracial identify, but they internalize a Black identity (Khanna, 2010). This is a recurring theme, with children more likely to identify themselves with a societal subordinate parent. This trend is most likely due to the drop rule. This rule indicated that any drop of African American blood forced the individual identify with the African American race (Hickman, 1997).

The biracial beauty stereotype is the concept that mixed individuals are viewed as more physically attractive than their Black or White counterpart (Sims, 2012). Lewis (2011) found that women of mixed descent were rated the most attractive in a series of images shown to participants. When participants in the study were shown image of mixed individuals, the participants rated the phenotypes that closely resembled a White individual as higher (Lewis, 2011). A study was completed by Brusma and Rockquemore analyzes the color complex between mixed individuals. (2001). The researchers completed a study to analyzed how mixed individuals identified their phenotype and social status via survey. When asked skin color, 33.9% identified as light skinned, 39% identified as medium skin tone, and 27.1% identified as dark skin tone (Brusma & Rockquemore, 2001). Despite those statistics, 56.2% identified as "ambiguous though most people assume I'm black". The survey also found that 64% of participants did not identify with the Black or White races, but as their own category of biracial. Only 13.7% of the sample surveyed identified themselves as Black. Despite their belief, most

biracial persons indicate that they experience the world as a Black individual (Brusma & Rockquemore, 2001). Some individuals decide to pass as Black; it is easier for a mixed individual to pass as Black because of the large amount of phenotypes within the African American community (Khanna & Johnson, 2010). Individuals who are biracial may identify as black to easier fit in socially; many claim that whites reject them in social settings. Also, many mixed racial persons do not want to identify with the stigma of being White, and they also find some social advantages to identifying as Black—such as employment or college financial aid/scholarships (Khanna & Johnson, 2010).

Attractiveness and Dating Preference

Lee, Loewenstein, Ariely, Hong, and Young (2008) conducted a study observing the attractiveness of an individual compared to their partner. The researchers used a website called "HOTorNOT.com". Individuals posted picture of themselves to be rated, and they rated the attractiveness of other individuals on the site. If an individual was deemed attractive, they were less likely to deem others attractive and be more selective in their preferences. This reinforces that an attractive individual is more likely to date another attractive individual (Lee et al., 2008). In another study done by Berscheid, Dion, Walster, & Walster (1971), college students were rated on their attractiveness then subjected to a study where their fear of rejection scores was calculated. The individuals that were deemed more attractive wanted the more socially desirable date and risked rejection to gain the date (Berscheid et al., 1971).

Allen (1976) conducted a study that analyzed the dating preference for White participants. The researcher specifically analyzed race and physical attractiveness; White university students of both genders participated. The participants were not allowed to be engaged, married, or "going steady" at the time of their participation. The study utilized full

body color pictures that had been rated on their attractiveness by another panel. Allen found that

both males and females had statistically significant preference for race and attractiveness.

Attractive people and White people were preferred by both females and males that participated in

the study (Allen, 1976).

Conclusion

The White phenotype has been favored throughout human history, and an individual is

frequently seen as more attractive by expressing White characteristics. However, this trend does

not correlate with the likelihood of dating outside one's race. There is a correlation between

attractiveness and dating; however, this correlation does not seem to extend outside of one's

race. Dating has remained a largely in-group practice. There is limited and controversial data on

why the gap exists. This research seeks to understand if an individual utilizes cultural norms

rather than attractiveness score when selecting between an in-group mate and an out-group mate.

This study analyzes if one will choose as intra-racial relationship despite finding another race

attractive, for possible reasonings such as friend loss, cultural norms, being disowned by parents,

etc.

Methods

Participants

This study utilized 289 undergraduate college students attending Oklahoma State University, a

Division I university located in the Southern Region of the United States; participants included

195 females, 92 males, 1 transgender man, and 1 participant that preferred not to list. In the male

population, 88 identified as heterosexual, 3 identified as homosexual, and 1 identified as

bisexual. In the female population, 176 identified as heterosexual, 2 identified as homosexual, 15

identified as bisexual, 1 identified as asexual, and 1 identified as pansexual. The transgender

male identified as bisexual. Those who identified as bisexual, asexual, or pansexual voted on both genders. In total, 107 people voted on female images and 194 voted on male images. Participants were also recruited from outside Oklahoma State University in the Midwest region by word of mouth. Within this study, 240 of the participants identified as white, 23 identified as Hispanic, 26 identified as African American, 10 identified as Asian, and 2 identified as Middle Eastern descent. Participants were allowed to associate with more than one race, so statistics reflect that. Ages in the study varied from 18 to 28; the average age in the study was 19.73 with a standard deviation of 1.591. The survey was volunteer participation, administered by a university system and spread by word of mouth.

Research Design and Materials

The purpose of this study was to examine the relationship between an individual's perception of attractiveness of members of the opposite sex versus the individual's dating preferences, with focus on the influence of racial/ethnic factors on a participant's responses. This research design was correlational; the study identified the relationship between attractiveness rating and dating preferences. The independent variable in this study was the varying skin color, and the dependent variable was attractiveness rating and dating preference.

A participant's completion of the research instrument, a survey, was considered the participant's informed consent to participate the study. To collect data, participants were asked to self-report attractiveness ratings and dating preferences on a survey administered through the survey system, Qualtrics (Qualtrics, Provo, UT). Qualtrics is an online survey software that offers the opportunity to collect research in a professional manner. Participants were asked to complete a survey of twenty four questions. The first seven questions on the survey were demographic questions, including gender, age, race/ethnicity, sexual preference and if the participant was

currently attending Oklahoma State University. All responses to the survey remained anonymous as the participant was never asked to supply their name at any point as part of survey completion. After completion of demographic questions, the Sociosexual Orientation Inventory by Jackson & Kirkpatrick (2007) was completed by participants. This inventory asked questions about beliefs on sexual relations and romantic relationships. The Sociosexual Orientation Inventory was utilized to gain a perception on how the participant viewed romantic relationships, since the following questions pertained to attractiveness and dating preferences.

The next eight questions on the survey asked participants to view a series of pictures in which participants responded with attractiveness preferences, dating preferences, and reasoning for selecting both categories. Depending on the participants sexual preference was where the participant was redirected. Those interested in males were redirected to male photos; those interested in females were redirected to female pictures; any bisexual participants completed sixteen questions over both male and females. The visual stimuli, pictures, for the project were found on Google Images. The photos were located by the researcher, then they were voted on in a survey to select the most attractive individuals for the final survey. The photos were voted on by one hundred and fifty participants in the Midwest. Eighty-five of the voters were female and sixty-five of the participants were male. Due to low scoring by males on other males, male scores were omitted from calculation for male attractiveness and female scores were omitted from attractiveness scoring on other females. Two white males, two mixed males, two black males, two white females, two mixed females, and two black females were selected for the final study. In an interesting phenomenon, the darker skin females were already down scored in attractiveness on the earlier survey, so a darker skin female was added back into the survey to ensure all skin colors represented.

In the survey, participants first scored each individual between zero to seven. Following ranking six individuals, the individuals were then asked to rank all six in attractiveness. After the attractiveness questions, the individual was then asked to scale their likelihood to date each individual. Following, the participant was asked to rank all of the individuals on likelihood to date. Finally, they were asked their reasoning for making the selections he/she did with the options: parental approval, friend approval, finding the individual to be more attractive, society approval, having a particular image in mind for a future spouse, workplace/education approval and prefer not to say.

After self-reporting attractiveness and dating preferences, participants were asked to scale how many of their friends, close friends were of minority descent and what percentage were white. This was structured as six different questions.

Following reporting their exposure to those of other races, participants were asked a series of twelve questions about familial, societal, and friendship approval of interracial dating and pressures. Participants were asked whether parents would approve and support, friends approve and support, and if society would accept them in an interracial relationship. This was a self-report measure to see how participant's feel others would react if they dated outside their own race.

Final follow-up questions on the survey asked about political party affiliation. A scale was featured with zero being very liberal, fifty being moderate, and one hundred being very conservative. After the scale, the participant was asked what political party he/she affiliated with, including: democrat, republican, libertarian, socialist, democratic socialist, green party, constitutionalist, communist, and prefer not to say.

Procedures

The survey was distributed to participants through SONA and anonymous link by word of mouth. The survey was completed electronically by participants on a computer or electronic device of their choosing. Students completed the survey on their own time, using their own electronic device.

In the beginning of the survey, participants were asked to identify gender, age, sexual orientation, and race they identify. Following the demographic questions, participants were asked to complete the Sociosexual Orientation Inventory (Jackson & Kirkpatrick, 2007). The rating and ranking of individuals followed the SOI.

On screen, participants were exposed to a images of varying skin color. The stimuli are images collected from Google.com. Participants were asked to rate each of the images on attractiveness by rating from zero to seven and also ranking each individual. completing a questionnaire about their preferences in attractiveness, a new screen was displayed to the participants. On this screen, the same stimuli from the last screen was again presented to the participants. The participants were instructed to select which stimuli seemed an ideal dating partner. Participants both rated their likelihood to date and ranked all the individuals on who they were most likely to enter a romantic relationship. After completion of their dating preferences, participants were inquired to share why they chose their particular "dating" partners, the reasons listed were as follows: "my parent's approval", "my friend's approval", "I found the individual to be more attractive than the others", "society approval", "I have a particular image in mind of the appearance on my future spouse", "workplace/education approval and advancement", and "prefer not to say".

After answering about dating preferences and incentives, participants were asked to identify how many of their friends identified as biracial/Asian/Hispanic/other and how many of their friends identified as white. The survey created an inventory asking about society approval, parental

approval, and friend approval of interracial relationships. The questions were: "my parents would be very disappointed if I dated someone outside my own race", "my friends would be very supportive of me dating outside my race", "I feel pressure from my family to marry/date someone of the same race as myself", "I fear that dating outside my race would reflect badly on me in my future employment", "I prefer men/women of my own race", "I am very open to dating outside my own race", "I find it difficult to emotionally relate to those that are not the same race as myself", "my friends would judge me if I dated outside my race", "society expects me to date within my own race", "my relationship with family would became estranged if I dated outside my race", "many of my friends date outside of their race", and "society is very accepting of interracial couples". Participants were asked to rank each of these questions on a scale of "strongly agree" to "strongly disagree". To conclude the survey, participants were asked to scale their political preference on a scale of 0 to 100, 0 indicating very liberal and 100 indicating very conservative. They were then asked their party affiliation.

Data Analysis

Descriptive data, including means, standard deviations and ranges, were computed for all demographic and experimental survey data. Linear regressions and one-way ANOVA statistics were used to determine the relationship between attractiveness ratings and dating preferences, society approval and attractiveness ratings, and political scales and attractiveness ratings. Data were examined for the entire group, as well as sub-groups, including by gender and race/ethnicity. This study only analyzed white individuals due to a lack of data for minority groups within the study to find statistical significance.

Results

Due to lack of data of diverse populations, only white participants were analyzed for this study.

Descriptive statistics, including N, range, mean and standard deviation, are reported in Table 1

and Table 2.

Table 1: Attractiveness Scores

Stimuli	N	Min	Max	Mean	SD
Dark Female 1	107	1	7	4.64	1.355
Dark Female 2	107	1	7	3.54	1.609
Mixed Female 1	107	1	7	4.32	1.286
Mixed Female 2	107	1	7	4.75	1.443
White Female 1	110	1	7	4.32	1.270
White Female 2	108	2	7	4.75	1.428
Dark Male 1	194	1	7	3.81	1.605
Dark Male 2	194	1	7	4.05	1.719
Mixed Male 1	194	1	7	3.54	1.688
Mixed Male 2	193	1	7	3.39	1.717
White Male 1	194	1	7	4.98	1.468
White Male 2	194	1	7	4.77	1.670

Table 2: Likelihood to Date Rankings

Stimuli	N	Min	Max	Mean	SD
Dark Female 1	105	0	7	3.76	2.146
Dark Female 2	105	0	7	2.16	2.015
Mixed Female 1	107	0	7	5.00	2.198
Mixed Female 2	105	0	7	4.00	2.166
White Female 1	106	0	7	4.59	2.046
White Female 2	105	0	7	4.24	2.339
Dark Male 1	193	1	7	3.39	1.717
Dark Male 2	183	0	7	2.79	2.070
Mixed Male 1	182	0	7	2.49	2.056
Mixed Male 2	184	0	7	2.15	1.977
White Male 1	186	0	7	4.92	1.963
White Male 2	181	0	7	4.49	2.382

A Pearson correlation was used to analyze the relationship between attractiveness ratings

(between 1 and 7) and rating the likelihood to date an individual (on a scale of 0 to 7) (see

Appendix A). There was a significant relationship between attractiveness and likelihood of

dating scores for all images with the exception of Mixed Girl 1 (r = .167, p = .086) (see

Appendix A).

A linear regression was used to analyze individuals by gender who selected "Society

Approval" as a reason for how they ranked images. Findings for the male gender were

statistically significant (β = -0.24, t = -2.265, p < .05), suggesting rankings by white males were

significantly associated with societal approval. Attractiveness ratings for white males rating

black females were lower if they were concerned about societal approval. Findings for females

were not statistically significant (β = -.014, t = -1.725, p = .087), indicating rankings by white

females for black males were not significantly associated with societal approval (Table 3).

A linear regression was used to analyze political party scale and attractiveness ratings by

gender. For male participants, findings were statistically significant (β = -.48, t = -2.265, p <

.05). Findings for female participants were also significant (β = -.36, t = -1.725, p < .05). Both

white males and white females were more likely to rank darker skin individuals lower on

attractiveness ratings if they associated themselves higher on the political scale (more

conservative) (Table 4). Males identifying as conservative on the political scale were more likely

to rank dark skin individuals lower on attractiveness than conservative ranking females (Table

4).

Table 3: Society Approval Effect on Attractiveness Ratings

Gender	B	SE B	β	t	p
Female	-0.378	0.219	-0.135	-1.725	0.087
Male	-0.851	0.376	-0.239	-2.265	0.026

Table 4: Political Scale on Attractiveness Ratings

Gender	B	SE B	β	t	p
Female	-0.021	0.004	-0.357	-4.823	0.000
Male	-0.035	0.007	-0.480	-5.048	0.000

Discussion

Examination of the current study's data indicated there was a significant correlation between attractiveness and dating preferences, providing insight to the first research question of this study. This finding suggested who one finds attractive is who they intend to date, and there is no discrepancy between the two. This finding contradicts the study's hypothesis that one may find outgroup individuals to be attractive; however, they might low rank on their willingness to date that individual based on other factors, such as societal influences. This finding may also suggest a bias from the initial encounter with an individual. This study originally sought to see if individuals found an individual attractive but was unwilling to date them because of their outgroup status. However, the outgroup bias may be happening from the original encounter with an individual.

According to the data in Table 1 and Table 2, the lowest attractiveness and dating scores were associated with the individuals of color. The study only analyzed the responses of White individuals due a lack of minority individuals completing the survey; therefore, the darker individuals were the outgroup. Since darker faced images were scored lower on attractiveness and dating rankings, one can infer a bias from the initial encounter to the dating preference. One may not find the outgroup individual to be attractive at the initial encounter or sight; therefore, they are unlikely to be interested in dating the individual.

White individuals received the higher attractiveness and dating scores, with mixed individuals, both male and female, varying in score. Some mixed individuals were ranked to be as attractive as White individuals, while others were ranked lower in attractiveness, especially those mixed individuals who were darker in color. There was a lack of significant correlation between attractiveness and dating scores for mixed-race stimuli. The lower attractiveness and

date rankings of darker individuals are consistent with the findings of previous. Lewis (2011) found that White females were ranked higher than Black females by males participating in the study, a phenomenon supported in the current study. In the present study, the researcher found darker females received the lowest dating and attractiveness rankings. In addition, the researcher found males to be most biased in relation to societal influence and political scale.

In the current study, a significant relationship was found between White males worried about society approval and their attractiveness ratings of darker faces. After rating each individual, participants were asked why they ranked individuals the way they did. Responses to this question suggested the White males were more concerned about societal approval than their female counterparts and were more likely to rank the dark females lower. This would suggest the attitudes of White males towards attractiveness and dating are significantly impacted by society's opinions. This relationship did not exist for the females participating in the study. In the study by Shenhav, Campos, and Goldberg (2017), researchers found parental approval to be a significant indicator of willingness to date outside of race. In the Shenhav et al. study, many interracial relationships left individuals with strained parental relationships. Further, a study by Martin, Bradford, Drzewiecka, and Chitgopeker (2010) found lack of acceptance was reasoning for ranking outgroup individuals lower. The current study evaluated the influence of societal approval, concluding White males worried about societal approval were most likely to rank darker women lower on an attractiveness scale. For White individuals, especially males, finding are a darker-skinned individual attractive was strongly influenced by perception of outside approval.

The most intriguing finding in this study was the linkage between the political scale and attractiveness ratings. There was a clear significance for both males and females with higher conservative scores to low-rank outgroup individuals. Participants were asked to indicate if they were conservative or liberal on a scale of 0 to 100 (100 being very conservative). Participants indicated this on a sliding scale. Study findings showed those who ranked as more conservative tended to score darker images lower. This finding suggests a bias and ingroup tendency within the conservative party. Both the society approval factors and political party bias answer research question two of the study. There are cultural norms that can affect one's rating and willingness to date outside of race. The results suggested White men were more hesitant to date out of race than White women. This is contradictory to recent findings of men having more positive attitudes towards interracial dating than women (Todd et al., 1992). However, the current study was only able to analyze White individuals.

Research question three examined sex differences in willingness to date outside race. The study analyzed male participant ratings on female images and female participant ratings on male images. The study found that for both male and female images, the darkest faces in the study were ranked the lowest. For female participants, the Mixed and Black images received lower attractive scores than both the White male images. For male participants, the attractiveness scores were much more varied. The attractiveness scores were correlational with the dating scores. The Mixed and Black male images were rated least likely to date, while the attractiveness scores of the female images varied throughout race. This suggests a favoritism towards the lighter faces in female participants. Lewis (2011) found Black men were ranked higher than White men for attractiveness in their study. In addition, Lewis (2011) found White women ranked higher than Black women in attractiveness ratings by the male population of their study.

In the present study, White men were ranked higher than Mixed or Black men by the female participants. In female rankings, a Mixed and White face were both ranked the highest by male participants. These results are not consistent with the study by Lewis (2011).

The researcher found women tended to be less biased in attractiveness ratings when examining for societal approval. Men in the population tended to rank darker females lower when they were concerned with societal approval. Findings for women participants were not significant, while findings for men participants were significant when analyzing societal approval versus attractiveness ratings. In the Lewis (2011) study, women participants were less biased in attractiveness ratings than their male peers; therefore, this reinforces the finding of the current study that women have less bias than men in attractiveness and dating preferences as associated with societal approval. In addition, the findings for females were less robust than men when testing political scale and attractiveness scores, though both scores were significant. Conservative males are more likely to give dark faces a lower attractiveness score than conservative females. In the study by Passel, Wang, and Taylor (2010), researchers did not find a difference between White males and White females in likelihood to date outside of their race. However, the current study indicated White females were more open to dating an outgroup member when testing for societal approval and political scale. Todd, Mckinney, Harris, Chadderton, and Small (1992) found that men in general were more likely to look outside their race for a dating partner. However, the Todd et al. study may have included individuals outside the White race, while this study did not. When only testing White individuals, the current study found women were more willing to date outside their race.

Limitations

Possible shortcomings of this research included the use of stock images. One could argue that the images were not uniform, so an individual may have just found one to be less attractive due to the differing facial symmetries or other factors. In future studies, one may be able to use the same image and darken the skin color using a photo editing application. Another shortcoming of the study was the lack of minority individuals. Researchers were unable to evaluate responses outside of the white race due to low numbers of minority individuals participating in the study. In addition, reasonings for ranking these individuals were restricted to a broad category. For example, one could indicate they chose their rankings because of "parental approval"; however, there is no indication of whether their parents would approve or disapprove of the interracial relationship. Some participants reached out and said their parents would actually be more approving of an interracial marriage, especially those of minority descent. Allowing participants to explain why they were concerned about parental approval in a future study may allow for a better understanding of the bias.

Future Directions

For further research, one may better detail why individuals are ranking the way they are. In a few instances, individuals reached out (especially of minority descent) and said their family would prefer if they dated outside their race. This relationship would be intriguing to investigate further. In addition, the political bias scale and low ranking of images can be investigated further. In this study, it was an accidental finding. For future research, one might investigate what this research indicates and why it occurred. In addition, one might investigate what individuals view as societal norms for dating outside of one's group and their opinions on the relationships.

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Appendix A

Correlations

		DarkMale1Attractive	WhiteMale1Attractive	MixedMale1Attractive	WhiteMale2Attractive	DarkMale2Attractive	MixedMale2Attractive	DarkMale1Rank	WhiteMale1Rank	MixedMale1Rank	WhiteMale2Rank	DarkMale2Rank	MixedMale2Rank
DarkMale1 Attractive	Pearson Correlation	1	.236**	.608**	.059	.696**	.591**	.591**	.035	.408**	-.129	.486**	.324**
	Sig. (2-tailed)		.001	.000	.412	.000	.000	.000	.634	.000	.083	.000	.000
	N	194	194	194	194	194	193	193	186	182	181	183	184
WhiteMale1 Attractive	Pearson Correlation	.236**	1	.174*	.279**	.130	.189**	.189**	.686**	.022	.169*	.009	.071
	Sig. (2-tailed)	.001		.015	.000	.071	.008	.008	.000	.764	.023	.900	.335
	N	194	194	194	194	194	193	193	186	182	181	183	184
MixedMale1 Attractive	Pearson Correlation	.608**	.174*	1	.042	.605**	.532**	.532**	.032	.685**	-.192**	.474**	.368**
	Sig. (2-tailed)	.000	.015		.556	.000	.000	.000	.666	.000	.010	.000	.000
	N	194	194	194	194	194	193	193	186	182	181	183	184
WhiteMale2 Attractive	Pearson Correlation	.059	.279**	.042	1	.085	.047	.047	.296**	-.030	.759**	.036	.146*
	Sig. (2-tailed)	.412	.000	.556		.239	.513	.513	.000	.690	.000	.631	.049
	N	194	194	194	194	194	193	193	186	182	181	183	184
DarkMale2 Attractive	Pearson Correlation	.696**	.130	.605**	.085	1	.460**	.460**	-.043	.439**	-.075	.730**	.342**

	Sig. (2-tailed)	.000	.071	.000	.239		.000	.000	.562	.000	.317	.000	.000
	N	194	194	194	194	194	193	193	186	182	181	183	184
MixedMale2 Attractive	Pearson Correlation	.591**	.189**	.532**	.047	.460**	1	1.000**	-.003	.459**	-.112	.310**	.726**
	Sig. (2-tailed)	.000	.008	.000	.513	.000		.000	.973	.000	.134	.000	.000
	N	193	193	193	193	193	193	193	185	181	180	182	183
DarkMale1 Rank	Pearson Correlation	.591**	.189**	.532**	.047	.460**	1.000**	1	-.003	.459**	-.112	.310**	.726**
	Sig. (2-tailed)	.000	.008	.000	.513	.000	.000		.973	.000	.134	.000	.000
	N	193	193	193	193	193	193	193	185	181	180	182	183
WhiteMale1 Rank	Pearson Correlation	.035	.686**	.032	.296**	-.043	-.003	-.003	1	.025	.342**	-.004	.012
	Sig. (2-tailed)	.634	.000	.666	.000	.562	.973	.973		.743	.000	.954	.870
	N	186	186	186	186	186	185	185	186	176	177	179	180
MixedMale1 Rank	Pearson Correlation	.408**	.022	.685**	-.030	.439**	.459**	.459**	.025	1	-.158*	.552**	.505**
	Sig. (2-tailed)	.000	.764	.000	.690	.000	.000	.000	.743		.039	.000	.000
	N	182	182	182	182	182	181	181	176	182	171	179	179
WhiteMale2 Rank	Pearson Correlation	-.129	.169*	-.192**	.759**	-.075	-.112	-.112	.342**	-.158*	1	-.077	.053
	Sig. (2-tailed)	.083	.023	.010	.000	.317	.134	.134	.000	.039		.316	.483
	N	181	181	181	181	181	180	180	177	171	181	173	174

DarkMale2 Rank	Pearson Correlation	.486**	.009	.474**	.036	.730**	.310**	.310**	-.004	.552**	-.077	1	.387**
	Sig. (2-tailed)	.000	.900	.000	.631	.000	.000	.000	.954	.000	.316		.000
	N	183	183	183	183	183	182	182	179	179	173	183	181
MixedMale2 Rank	Pearson Correlation	.324**	.071	.368**	.146*	.342**	.726**	.726**	.012	.505**	.053	.387**	1
	Sig. (2-tailed)	.000	.335	.000	.049	.000	.000	.000	.870	.000	.483	.000	
	N	184	184	184	184	184	183	183	180	179	174	181	184

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

		DarkFemale1Attractive	WhiteGirl1Attractive	MixedGirl1Attractive	MixedGirl2Attractive	WhiteGirl2Attractive	DarkFemale2Attractive	DarkFemale1Rate	WhiteFemale1Rate	MixedGirl1Rate	MixedGirl2Rate	WhiteGirl2Rate	DarkFemale2Rate
DarkFemale1Attractive	Pearson Correlation	1	.358**	.358**	.578**	-.068	.561**	.628**	.093	.269**	.463**	-.124	.402**
	Sig. (2-tailed)		.000	.000	.000	.487	.000	.000	.350	.005	.000	.209	.000
	N	107	107	107	107	107	107	105	103	107	105	105	105
WhiteGirl1Attractive	Pearson Correlation	.358**	1	1.000**	.275**	.246*	.285**	.198*	.603**	.167	.256**	.120	.228*
	Sig. (2-tailed)	.000		.000	.004	.011	.003	.043	.000	.086	.009	.222	.020
	N	107	110	107	107	107	107	105	103	107	105	105	105

MixedGirl1 Attractive	Pearson Correlation	.358**	1.000**	1	.275**	.246*	.285**	.198*	.603**	.167	.256**	.120	.228*
	Sig. (2-tailed)	.000	.000		.004	.011	.003	.043	.000	.086	.009	.222	.020
	N	107	107	107	107	107	107	105	103	107	105	105	105
MixedGirl2 Attractive	Pearson Correlation	.578**	.275**	.275**	1	.119	.601**	.577**	.109	.402**	.749**	.017	.426**
	Sig. (2-tailed)	.000	.004	.004		.221	.000	.000	.274	.000	.000	.866	.000
	N	107	107	107	107	107	107	105	103	107	105	105	105
WhiteGirl2Attractive	Pearson Correlation	-.068	.246*	.246*	.119	1	-.003	.237*	.420**	.183	.178	.814**	.091
	Sig. (2-tailed)	.487	.011	.011	.221		.973	.015	.000	.059	.069	.000	.358
	N	107	107	107	107	108	107	105	103	107	105	105	105
DarkFemale2Attractive	Pearson Correlation	.561**	.285**	.285**	.601**	-.003	1	.483**	-.019	.211*	.461**	-.061	.756**
	Sig. (2-tailed)	.000	.003	.003	.000	.973		.000	.849	.029	.000	.539	.000
	N	107	107	107	107	107	107	105	103	107	105	105	105
DarkFemale1Rate	Pearson Correlation	.628**	.198*	.198*	.577**	.237*	.483**	1	.348**	.466**	.761**	.287**	.588**
	Sig. (2-tailed)	.000	.043	.043	.000	.015	.000		.000	.000	.000	.003	.000
	N	105	105	105	105	105	105	105	101	105	103	103	103
WhiteFemale1Rate	Pearson Correlation	.093	.603**	.603**	.109	.420**	-.019	.348**	1	.200*	.349**	.493**	.155

	Sig. (2-tailed)	.350	.000	.000	.274	.000	.849	.000		.043	.000	.000	.122
	N	103	103	103	103	103	103	101	106	103	101	101	101
MixedGirl1 Rate	Pearson Correlation	.269**	.167	.167	.402**	.183	.211*	.466**	.200*	1	.510**	.193*	.289**
	Sig. (2-tailed)	.005	.086	.086	.000	.059	.029	.000	.043		.000	.048	.003
	N	107	107	107	107	107	107	105	103	107	105	105	105
MixedGirl2 Rate	Pearson Correlation	.463**	.256**	.256**	.749**	.178	.461**	.761**	.349**	.510**	1	.187	.500**
	Sig. (2-tailed)	.000	.009	.009	.000	.069	.000	.000	.000	.000		.058	.000
	N	105	105	105	105	105	105	103	101	105	105	103	103
WhiteGirl2Rate	Pearson Correlation	-.124	.120	.120	.017	.814**	-.061	.287**	.493**	.193*	.187	1	.176
	Sig. (2-tailed)	.209	.222	.222	.866	.000	.539	.003	.000	.048	.058		.074
	N	105	105	105	105	105	105	103	101	105	103	105	104
DarkFemale2Rate	Pearson Correlation	.402**	.228*	.228*	.426**	.091	.756**	.588**	.155	.289**	.500**	.176	1
	Sig. (2-tailed)	.000	.020	.020	.000	.358	.000	.000	.122	.003	.000	.074	
	N	105	105	105	105	105	105	103	101	105	103	104	105

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix B

Cultural norm questions

1. My parents would be very disappointed if I dated someone outside my own race

2. My friends would be very supportive of me dating outside my race

3. I feel pressure from my family to marry/date someone of the same race as myself

4. I fear that dating outside my race would reflect badly on me in my future employment

5. I prefer men/women of my own race

6. I am very open to dating outside my own race

7. I find it difficult to emotionally relate to those that are not the same race as myself

8. My friends would judge me if I dated outside my race

9. Society expects me to date within my own race

10. My relationship with family would became estranged if I dated outside my race

11. Many of my friends date outside of their race

12. Society is very accepting of interracial couples