Trait Perception as a Function of Skin Tone in French-Speaking Senegalese People

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Abstract

In Experiment I, 18 college students were chosen to rate pictures of 3 models (African/African American, Hispanic, and Caucasian) on how assertive they thought the models would be in a given scenario on a scale of 1-6. Subjects were chosen randomly by their ethnicity as African/African American, Hispanic, or Caucasian. In accordance with the hypothesis, subjects, especially the Hispanic ones, rated the African/African American model as more assertive than either of the Hispanic or Caucasian models.

In Experiment II, 29 French-speaking Senegalese people and 13 English-speaking Americans ranked six photos of African/African American women with light or dark skin tones on how likely they would be perceived as aggressive, generous, greedy, courageous, have completed their studies at a university, and considered beautiful in the given scenarios.

Overall skin color was not found to be significant for the aggressiveness trait, the courage trait, the generosity trait, or likely to be considered to be beautiful. Yet, overall participants ranked the photos of the lighter skinned women as greedier. Overall and both Senegalese and American participants separately ranked the photos of the light women as more or somewhat more likely to have completed their studies at a university. Americans ranked darker women as being more courageous, more generous, more likely to be considered beautiful. Yet, they ranked the photos of the lighter women as being somewhat more likely to be aggressive, and more likely to be greedy.

Keywords: personality traits, perceptions, African, African American, Caucasian, Senegalese, colorism, mulatto, métis, stereotypes, aggressiveness, beauty, courageousness, generosity, greediness, school

Trait Perception as a Function of Skin-Tone in French-Speaking Senegalese People

This thesis reports two experiments. The first examines the single trait of assertiveness and uses American college students as participants. The second examines six different traits and uses French-speaking Senegalese people as participants, along with a baseline group of English-speaking Americans living in Senegal.

Experiment I

Stereotypes of African Americans in the Media

Contemporary social media are known for skewing perceptions of Africans, African Americans, Hispanics, and other ethnic groups as stereotypical through misleading images in commercials, television shows, movies, phone applications, and Internet advertisements. Specifically, studies have shown that "news television programs often misrepresent Black Americans as perpetrators of crime and violence while Whites are often viewed as innocent victims" (Harrison, Reynolds-Dobbs, & Thomas, 2008, p. 50). Furthermore, many stereotypical images are gendered. For example, the stereotype of African Americans as violent or aggressive is directly related to men, whereas African American women experience different stereotypes that are not only extremely racist, but sexist as well.

Most of the research on African American women and skin color are focused on advertisements. In a study conducted in 1996, Keenan investigated the favoring of lighter skin of African Americans in advertisements and editorial photographs from 1989 to 1994. Keenan (1996) found that African Americans in advertisements were shown to have lighter skin and more Euro-centric physical features than those in editorial photographs. In addition Black women were lighter than their male counterparts in advertisements. Due to the high amount of media contact that Americans receive on a daily basis, we not only internalize these false

stereotypical illustrations of race and skin color, but also impose them on others within and outside of our own racial groups.

Negative Stereotypes of African American Women

Particularly, African American women have been given various labels, which developed as a direct result of slavery. Mammy, Jezebel, and Sapphire are all terms used during slavery to describe African American women, which exaggerate one distinct attribute. Mammy was an older, obese, dark-skinned woman who worked in her master's house oftentimes doing domestic labor. This stereotype "contributed to African American women's being perceived as nurturing, good caretakers, strong, supportive, and selfless" (Thomas, Witherspoon and Speight, 2004, p. 429). However, this stereotype distorts perceptions of African American women as putting others' needs before their own.

The sexual exploitation and victimization of African American women as a means to "justify sexual relations with enslaved women," produced the stereotype of the Jezebel, which is seen as "seductive, manipulative, hypersexed, animalistic in desires, and unable to control sex drives" (Thomas et al., 2004, p. 429). Permeating through media, this stereotype is highly visible especially in contemporary hip-hop and rap music lyrics and music videos.

In addition, the Sapphire stereotype of African American women was seen as "nagging, emasculating, shrill, loud, argumentative, and a master of verbal assaults" (Thomas et al., 2004, p. 429). Presumably, this stereotype laid the foundation for which the stereotype of the "Angry Black Woman," was created, which characterizes Black women as "aggressive, ill tempered, illogical, overbearing, hostile, and ignorant without provocation" (Ashley, 2014, p. 27). Consequentially, this stereotype, like all others, is perpetuated throughout daily interactions in covert and overt ways. Furthermore, as described by Thomas et al. (2004), the internalization of

these negative stereotypes contributes to poor self-concept, repression of sexual feelings, and fear of emotional expression such as anger. However, it is clear through these various stereotypes of Black women that we cannot divorce race and skin color from them, as "dark skin is more likely to conjure up stereotypical images of African Americans," (Harrison et al., 2008, p. 51).

Previous Literature on Feminine Assertiveness

The current study is a follow-up experiment to the article, "Male-female estimates of feminine assertiveness related to females' clothing styles" by Edmonds, Cahoon, and Hudson (1992). The study employed female and male college students to rate the perceived assertiveness of female models dressed either conservatively or with sexually provocative clothing in sexual and non-sexual social situations. This study found that there were no differences related to clothing styles, yet all students rated the model as more assertive in the sexual social situation than the non-sexual situation. Instead of examining women's clothing styles in relation to male-female estimates of their assertiveness, this experiment focuses on whether ethnicity influences how one rates assertiveness of African/African American, Hispanic, and Caucasian women.

Hypotheses

Based upon the before-mentioned stereotype of African American women being perceived as overly aggressive, I hypothesized that subjects from each of the three ethnicities (African/African American, Hispanic, or Caucasian) would rate both the African/African American model and the Hispanic model as more assertive than the Caucasian model.

Method

Subjects. The investigator tested 18 college undergraduate students from the University of Colorado Boulder. Six of the total number of participants identified as one of the three

ethnicities being examined (African/African American, Hispanic, or Caucasian). There were also

11 females and 7 males.

 Subjects were selected based off of their ethnicity as African/African American,

Hispanic, or Caucasian. Four additional subjects were not used in the analysis of data, because

they identified as two or more races. Therefore, I was unable to use the data for these

participants. The selection of subjects based off of ethnicity and the exclusion of multi-racial

subjects was done in order to make clear connections between the race of the participants and

their perceived assertiveness of the models. Subjects were randomly tested at the University of

Colorado Boulder in the Student Academic Success Center's lounge or at the University

Memorial Center. Subjects included in this experiment were coworkers and associates of the

investigator.

Design. A single scenario was used in which a person cut in line in front of the model.

Subjects rated the model's perceived assertiveness on a Likert scale of 1 to 6 (1 = least likely to

be assertive, 6 = most likely to be assertive).

Using a Latin square design, the order in which subjects viewed each model was

counterbalanced across subject ethnicity. A 3x3 mixed factorial analysis of variance design was

used of which there were two independent variables: (a) the subjects' ethnicity, which is a

between-subjects quasi-experimental variable and (b) the ethnicity of the models, which is a

within-subjects variable. The dependent variable was the rating of the models on a Likert scale of

1-6.

Materials. All subjects were given a consent form, demographics form, and testing form.

The demographics form allowed each participant to identify his or her age range (all of which

were between 18-25 years old), ethnicity, and gender. The test form included the definition of the

word *assertive* from the online Oxford dictionary, followed by a short scenario involving an

imaginary person cutting in line in front of the given models individually (see the Appendix),

and lastly the rating scale for each model.

Pictures of the three models were produced from a Google images search. Each picture is

a headshot from the shoulders to the head and is facing forward. The expressions of each model

are similar, yet are not the same. Their backgrounds are not the same color, but do display

neutral colors of either gray, dark gray, or white. The models are also wearing different types of

clothing, and two of the models, the African/African American and Caucasian, have short hair;

whereas, the Hispanic model has the longest hair, which is in a ponytail. The Caucasian model

has white/fair skin tone, the Hispanic model has light brown skin tone, and the African/African

American model has black/dark brown skin tone. (Please refer to Figure A1 of the Appendix for

images.)

Procedure. After the experimenter read aloud the instructions to the individual

participants, they filled out the demographics form, and then proceeded to the testing form.

While in the presence of the principal investigator, each subject read the definition of *assertive*,

followed by the given scenario. Subsequently, subjects indicated when they were ready to view

each model, separately. Additionally, subjects were told that they were not allowed to change

their answers once they chose a specific score for each model. Participants were allowed to view

each model for as long as they wanted, thus were not given any time limit. Still, testing took

between 5-7 minutes per participant.

Results

A 3x3 mixed factorial analysis of variance design was used to analyze the data, and

revealed that participants rated the African/African American model as more assertive than either

of the Hispanic or Caucasian models. The main effect of model ethnicity was marginally significant, $F(2,30) = 3.131$, $MSE = 0.733$, $p = .0582$ (see the bottom panel of Figure 1). There was a significant interaction of model ethnicity and subject ethnicity, $F(4,30) = 2.980$, $MSE = 0.733$, $p = .0348$. Subjects, particularly the Hispanic subjects, rated the African American model as more assertive than either the Caucasian or Hispanic model (see the top panel of Figure 1).

My initial hypothesis was shown to be partially incorrect, because there was not a significant result providing evidence that the subjects rated the Hispanic model equal to the African/African American model and more assertive than the Caucasian model. The top panel of Figure 1 shows the participant ethnicity on the x-axis, and the different colors represent the ethnicity of the models.

Discussion

As described in the Introduction, one possible explanation as to why subjects rated the African/African American model as more assertive than the Caucasian and Hispanic models could be due to the modern depiction of the "Angry Black Woman" stereotype. One cinematic example, the movie "Medea" by Tyler Perry, displays an older African American woman, played by Tyler Perry himself, as aggressive and violent in situations regarding her family, friends, and extended family. In some scenes she is shown to have a gun, which she keeps in her purse and resorts to using violence when provoked or in any given situation. She is also shown to have legal problems due to her outrageous behavior. One movie by Tyler Perry is named, "Medea Goes to Jail," which suggests that African American women are violent and subsequently have legal problems. The example described is only one part of many other popular media outlets, which regularly portray African American women in this stereotypical way and strengthen the incorrect belief that all African American women act overly aggressive in certain situations.

What can be deemed as ironic as well as the internalization of this stereotype is the fact that Tyler Perry is an African American male impersonating the role of an older African American woman.

As my experiment demonstrates, subjects across all three ethnicities altogether perceived and rated the African/African American as more assertive than the Caucasian and Hispanic models. Still, one cannot divorce the racial identity of African American women and their skin color as perceived to be Black. It is precisely their skin color, along with other facial features and hair that are responsible for the stereotypes placed upon them. As Angela Harris nicely states, "skin color is always read in the context of hair, dress, gender, age and season, among other factors" (Harris, 2009, p. 2).

Experiment II

History of Skin Color Differences in the African American Community: The Mulattoes

Within every racial group skin color occurs on a continuum from light to dark or dark to light, depending on your perspective. This continuum exists within as well as between racial groups (E.N.G., 2009, p. 7) and is especially visible when comparing European and African racial groups.

Intergroup skin color differences are present within other racial groups and regions around the world including Africa, South America, India, Asia, and within the African American community in America. However, within the African American community in the United States this stratification of skin color is largely due to European slave masters copulating with African slave women, particularly in the American south. This mixing of European and African racial groups created a new group of people called *Mulattoes*. In Senegal this group of people were referred to as the *Métis* (Jones, 2013, p. 1).

In America the divide among African Americans by skin color eventually began to grow as White fathers "would see to it that mulattoes received advantages that were not as available to African-Americans of darker skin color," (Hall, 2008, p. 25). African Americans with lighter skin received not only better educational opportunities, but also had better access to "desirable skilled and domestic positions, better food and clothing…and were treated less harshly by owners and overseers," (Keith, 2009, p. 27). However, it is necessary to note that mulattoes did not receive equal treatment as Caucasians. Yet, through their more privileged societal positions they began to create the mulatto elite through associating more closely with Caucasian ideals, beliefs, and values while at the same time not affiliating with the darker African American communities and social organizations (Keith, 2009, p. 28). This practice effectively set mulattoes apart from darker skinned African Americans. Presently, skin color stereotypes between light and dark skinned African Americans are maintained within and outside of the African American community.

Due to the divide among African Americans on the basis of skin color where lighter skin color is highly idealized, the new concept of *colorism* was created. Unlike *racism* in which members of the same group discriminate against members of another group based on skin color, in colorism members of a given group discriminate against each other based on skin color. Furthermore, studies have shown that there is idealization of lighter skin and that it is privileged in areas such as education, income, housing, and spousal status.

History of Skin Color Differences in Senegal: The Métis

The métis experienced similar social, political, and educational privileges based upon their mixed race and skin color. Mixed-race families were appointed to "ambassadorships, in Paris, London and the Vatican…[and] served as lawyers, magistrates, journalists, and educators"

(Jones, 2013, p. 1) after the Independence of Senegal from France in 1960. However, during the eighteenth century, *signares*, descendants of African women and European merchants or soldiers, held prominent positions on Gorée Island and St. Louis, the first French colonized city in Senegal (Jones, 2013, p. 1). Nearly identical to mulattoes in relation to White Americans, the métis began to assimilate to European standards of language, dress, taste, and habits of the French bourgeoisie (Jones, 2013, p. 1) as they continued to gain higher status. Akin to mulattoes, the métis were not treated as an equal to the French, yet also "suffered alienation from both African and European societies" (Jones, 2013, p. 10).

The métis and mulattoes shared several common experiences in their respective societies. They were both allowed to access better political, social, and educational opportunities, yet at the same time were barred from being treated and recognized equally by Whites. The métis and the mulattoes both were privileged more so than darker Africans and African Americans due to their lighter skin complexion and connection to varied amounts of power and status through their White fathers. Particularly the métis of the nineteenth century claimed French paternity through taking on the surnames of their fathers (Jones, 2013, p. 11). Additionally, they are presently positioned between the power dynamic of Caucasians and darker skinned Africans or African Americans, therefore forcing these groups to create communities of their own at different times throughout history.

In the present study, due to the historical and current findings that light skin is privileged in relation to gaining higher education, the investigator hypothesized that participants would rank the photos of women with lighter skin as more likely to have completed higher education. The researcher also hypothesized that light skin would be considered more beautiful in connection to the idealization of Eurocentric features, including lighter skin tone.

Additionally, it was hypothesized that participants would rank women with lighter skin as more greedy in connection to their higher position to receive an education, which could increase income, yet not the likelihood that they would share it.

The investigator also hypothesized that the darker skinned women would be ranked as more aggressive based off of her previous study. Intuitively and based off of personal observations, and media portrayals of African and African American women, it was hypothesized that darker women would be ranked as more generous and courageous.

Method

The present research, which was conducted in Dakar, Senegal, investigated how skin tone, specifically lighter and darker skin tones, might be related to perceived traits of aggressiveness, generosity, greediness, courageousness, considered beautiful, and likelihood of having completed studies at a university. This research took place while the investigator was studying abroad during the Fall 2013 semester through the Council of International Exchange and Education, Dakar: Language and Culture program and under the guidance of Dr. Alice Healy and local sponsors Gamo Tounkara and Moutarou Diallo.

Subjects. Following IRB approval and a grant from UROP, 42 subjects were selected to participate in this study after being given the written consent form, demographics form, and testing form either in French or English. Overall there were 29 Senegalese subjects and 13 American subjects who identified as either French-speaking or English-speaking men and women, 18 years old or older. Subjects were either African American, Caucasian, Wolof, Pular/Fulani, Serer, Diola, Mandink, or Cap Verdian ethnicity. Subjects were recruited from the CIEE Dakar: Language and Culture program, families and friends of those students, and French-speaking Senegalese people. Testing took place at the CIEE study center, at the subject's home,

at a host family's home, or at the home of the investigator. All of the American participants were also studying abroad through CIEE and living in Senegal. They were selected to participate in this study to provide a baseline and not as a means of comparison.

Design and procedure. Each participant read one scenario per trait, chosen to evoke a characteristic response of aggressiveness, generosity, greediness, courageousness, considered beautiful, and likely to have completed her studies at a university. Using a counterbalancing procedure, subjects viewed six photos taken from the Internet of African/African American women with light or dark skin complexions (see Figure A2 of the Appendix). Specifically, half of the participants saw the lighter skinned women first and half viewed the darker women first in each of the three pairs (A, B, C). Subjects then rank ordered the photos (1-6), on who they thought would be the most likely to least likely woman to be aggressive, generous, greedy, courageous, considered beautiful, or likely to have completed higher education in the scenario, accordingly (see the Appendix for the scenarios). The order of the scenarios was fixed, as shown in the Appendix. The investigator explicitly told each participant that he or she had to give a different number to each model in each scenario. This was to ensure that participants did not give the same ranking for different models, which increased statistical power.

Materials. All participants were given the written consent form, demographics form, and testing form, which was either in French or English. The demographics form asked for participants to identify their race/ethnicity, age range, religion, and gender.

Results

In analyzing the data, a mixed factorial ANOVA was completed for each trait overall as well as separately for American and Senegalese participants. Although the main effect of picture pair (A, B, C) and the interaction of picture pair by skin color were analyzed and reported in this

section, they will not be emphasized later in the summary. Additionally, color order will not be

reported in the results since it was only used as a counterbalancing variable. The main effect of

skin color is the focus of this thesis and will be emphasized here. The interaction of picture pair

and skin color is shown for the overall analysis and for the separate analyses of Senegalese and

American participants in Figures 2-7 for each of the six traits.

1. Aggressiveness.

Overall. I hypothesized that overall the darker skinned women would be ranked as

perceived to be more aggressive than the lighter skinned women. Skin color was not found to be

significant; however there was a main effect of picture pair (A, B, C)**,** $F(2, 80) = 8.765$, $MSE =$

3.832, $p = .0004$**.** Participants ranked pair C as being the least aggressive in the given scenario

($M = 2.798$), followed by pair B ($M = 3.679$). Participants ranked pair A as being the most

aggressive in the given scenario ($M = 4.024$).

There was a significant interaction of picture pair by skin color, $F(2, 80) = 6.869$, $MSE =$

2.500, $p = .0018$**.** Overall in pair A participants ranked the photo of the lighter woman higher (M

$= 4.452$) than the photo of the darker woman ($M = 3.595$). In pair B, overall participants ranked

the lighter photo lower ($M = 3.286$) than the darker photo ($M = 4.071$). In pair C, overall

participants rated the lighter photo higher ($M = 3.143$) than the darker photo ($M = 2.452$).

Altogether, the photo of the lighter woman with an Afro (pair A) was ranked the most aggressive

in the given scenario, whereas the photo of the darker, older woman (pair C) was ranked as the

least aggressive in the given scenario.

Senegalese ANOVA. Skin Color was not found to be significant. Yet, there was a main

effect of picture pair (A, B, C), $F(2, 54) = 27.072$, $MSE = 2.336$, $p < .0001$. Senegalese

participants ranked pair A the highest ($M = 4.345$), followed by pair B ($M = 3.741$), and pair C the least aggressive in the given scenario ($M = 2.414$).

There was an interaction of picture pair by skin color, $F(2, 54) = 5.390$, $MSE = 2.407$, $p = .0073$. Senegalese participants ranked in pair A that the photo of the lighter woman would be more aggressive ($M = 4.828$) than the photo of the darker woman ($M = 3.862$). In pair B the photo of the darker woman was ranked higher ($M = 4.172$) than the photo of the lighter woman ($M = 3.310$). In pair C, Senegalese participants ranked the photo of the darker woman equal to the photo of the lighter woman ($M = 2.414$).

American ANOVA. There was a marginally significant main effect of skin color (dark, light), $F(1, 11) = 3.724$, $MSE = 2.041$, $p = .0798$. American participants ranked the photos of the lighter women ($M = 3.872$) as being somewhat more likely to be aggressive in the given scenario than the photos of the darker women ($M = 3.128$).

The main effect of picture pair was not significant, but the interaction of picture pair by skin color was significant, $F(2, 22) = 8.204$, $MSE = 1.953$, $p = .0022$. American participants ranked in pair A the photo of the lighter woman higher ($M = 3.615$) than the photo of the darker woman ($M = 3.000$). In pair B, the photo of the darker woman was ranked higher ($M = 3.846$) than the photo of the lighter woman ($M = 3.231$). In pair C, the photo of the lighter woman was ranked much higher ($M = 4.769$) than the photo of the darker woman ($M = 2.538$). Altogether, American participants ranked the photo of the lighter, older woman (in pair C) as being the most aggressive in the given scenario, whereas the photo of the darker, older woman (in pair C) was ranked as being least aggressive in the given scenario.

Summary. Overall skin color was not found to be significant for the aggressiveness trait, yet was marginally significant with American participants, but not with Senegalese participants.

However, contrary to the hypothesis, the American participants ranked the lighter women as somewhat more aggressive than the darker women overall.

2. Beauty.

Overall. I hypothesized that the lighter skinned women would be ranked as more beautiful than the darker skinned women. Skin color was not found to be significant. There was a main effect of picture pair (A, B, C)**,** $F(2, 80) = 3.621$, $MSE = 4.560$, $p = .0312$. Overall participants ranked pair A the most beautiful ($M = 3.845$), followed by pair B ($M = 3.655$), and lastly pair C ($M = 3.000$).

There was an interaction of picture pair by skin color, $F(2, 80) = 5.265$, $MSE = 2.153$, $p = .0071$. Overall participants ranked in pair A the photo of the darker woman as considered to be more beautiful ($M = 4.262$) than the photo of the lighter woman ($M = 3.429$). In pair B the photo of the darker woman was ranked as considered to be more beautiful ($M = 3.976$) than the photo of the lighter woman ($M = 3.333$). In pair C participants ranked the photo of the lighter woman higher ($M = 3.262$) than the photo of the darker woman ($M = 2.738$). Altogether, participants ranked the photo of the darker woman with an Afro (pair A) the highest and the photo of the darker, older woman (pair C) as the least beautiful.

Senegalese ANOVA. Skin color was not found to be significant. Yet, there was a significant main effect of picture pair (A, B, C), $F(2, 54) = 3.465$, $MSE= 3.987$, $p = .038$. Senegalese participants ranked the photos of the women with makeup (pair B) as being the least beautiful ($M = 3.190$), followed by the photos of the older women (pair C, $M = 3.241$), with the photos of the women with Afros (pair A) ranked most beautiful ($M = 4.069$).

There was a significant interaction of picture pair by skin color, $F(2, 54) = 3.735$, $MSE = 2.431$, $p = .0302$. Senegalese participants ranked the dark woman with the Afro as the most

beautiful (*M* = 4.483), followed by the light woman with the Afro (*M* = 3.655), followed by the older light woman (*M* = 3.586), then the dark woman with the makeup (*M* = 3.276). The light woman with the makeup was ranked second to last (*M* = 3.103); whereas the dark older woman was ranked as the least beautiful (*M* = 2.897).

American ANOVA. There was a main effect of skin color (dark, light)**,** $F(1, 11) = 7.007$, *MSE* = 1.230, p = .0227. American participants ranked the photos of the lighter women as less beautiful (*M* = 3.103) than the photos of the darker women (*M* = 3.897).

There was also a main effect of picture pair (A, B, C)**,** $F(2, 22) = 9.499$, *MSE* = 3.732, *p* = .0011. American participants ranked the photos of the older women (pair C) as the least likely to be considered beautiful (*M* = 2.462), followed by the photos of the women with Afros (pair A) (*M* = 3.346). American participants ranked the photos of the women with makeup (pair B) as the most likely to be considered beautiful (*M* = 4.692).

There was an interaction of picture pair by skin color, $F(2, 22) = 4.576$, *MSE* = 1.380, *p* = .0218. American participants ranked the photo of the dark woman with makeup (pair B) as the most beautiful (*M* = 5.538), followed by the photo of the light woman with makeup (pair B) (*M* = 3.846), the photo of the dark woman with the Afro (pair A) (*M* = 3.769), the photo of the light woman with the Afro (pair A) (*M* = 2.923), and the photo of the old, light woman (pair C) (*M* = 2.538). The photo of the dark, old woman (pair C) was ranked as least beautiful (*M* = 2.385).

Summary. Overall skin color was not found to be significant for the subjects' perceptions of beauty, yet was found to be significant with American participants, but not with Senegalese participants. Contrary to predictions, the Americans considered the dark women as generally more beautiful than the light women.

3. Courageousness.

Overall. I hypothesized that overall the darker women would be ranked as perceived to be more courageous than the lighter skinned women. Skin color was not found to be significant.

There was a main effect of picture pair (A, B, C), $F(2, 80) = 7.474$, $MSE = 4.449$, $p = .0011$. Overall participants ranked the photos of the older women as being less likely to be courageous in the given scenario ($M = 2.774$), followed by the photos of the women with makeup ($M = 3.845$), and lastly the photos of the women with the Afros ($M = 3.881$). There was an interaction between skin color and picture pair, $F(2, 80) = 9.019$, $MSE = 2.108$, $p = .0003$. Overall participants ranked in pair A the photo of the lighter woman as being more courageous in the given scenario ($M = 4.143$) than the photo of the darker woman ($M = 3.619$). In pair B, the photo of the darker woman was ranked higher ($M = 4.524$) than the photo of the lighter woman ($M = 3.167$). Also, in pair C, the photo of the darker woman was ranked higher ($M = 2.857$) than the photo of the lighter woman ($M = 2.690$). Altogether, the photo of the darker woman with makeup was ranked the highest (as being the most courageous) in the given scenario, whereas, the photo of the lighter, older woman was ranked the lowest.

Senegalese ANOVA. Skin color was not found to be significant. Also the main effect of picture pair (A, B, C) was not significant, but the interaction of picture pair and skin color was significant, $F(2, 54) = 5.910$, $MSE = 2.254$, $p = .0048$. Senegalese participants ranked in pair A the photo of the lighter woman as being more courageous in the given scenario ($M = 4.276$) than the photo of the darker woman ($M = 3.276$). In pair B, the photo of the darker woman was ranked higher ($M = 4.172$) than the photo of the lighter woman ($M = 3.172$). In pair C, the photo of the darker woman was ranked higher ($M = 3.138$) than the photo of the lighter woman ($M = 2.966$). Altogether, Senegalese participants ranked the photo of the lighter woman with an Afro as being

the most courageous in the given scenario; whereas, the photo of the lighter, older woman was ranked the least courageous.

American ANOVA. There was a main effect of skin color (dark, light), $F(1, 11) = 11.958$, $MSE = 1.648$, $p = .0054$. American participants ranked the photos of the darker women higher ($M = 3.974$) than the photos of the lighter women ($M = 3.026$) as being courageous in the given scenario, as hypothesized.

There was also a main effect of picture pair (A, B, C), $F(2, 22) = 11.917$, $MSE = 2.872$, $p = .0003$. American participants ranked pair B ($M = 4.231$) as being the most courageous in the given scenario, followed by pair A ($M = 4.115$), and lastly pair C ($M = 2.154$).

There was an interaction of picture pair by skin color, $F(2,22) = 4.205$, $MSE = 1.697$, $p = .0284$. American participants ranked in pair A the photo of the darker woman as being more courageous in the given scenario ($M = 4.385$) than the photo of the lighter woman ($M = 3.846$). In pair B, the photo of the darker woman was ranked higher ($M = 5.308$) than the photo of the lighter woman ($M = 3.154$). In pair C, again the photo of the darker woman was ranked higher ($M = 2.231$) than the photo of the lighter woman ($M = 2.077$). Altogether, American participants ranked the photo of the darker woman with makeup the highest, whereas the photo of the lighter, older woman was ranked the lowest with respect to being courageous in the given scenario.

Summary. Overall skin color was not found to be significant for the courage trait, yet was found to be significant with American participants, but not with Senegalese participants. For the Americans, darker skin women were rated as more courageous, in agreement with the hypothesis.

4. Generosity.

Overall. I hypothesized overall that the darker skinned women would be perceived to be more generous than the lighter skinned women. Overall, skin color was not found to be significant.

There was a main effect of picture pair (A, B, C), $F(2, 80) = 18.779$, $MSE = 4.065$, $p <$ .0001. Overall participants ranked pair C as being the most generous in the given scenario ($M = 4.583$), followed by pair B ($M = 3.036$), and lastly pair A ($M = 2.845$). Additionally, there was no interaction of picture pair and skin color.

Senegalese ANOVA. Skin color was not found to be significant. However, there was a main effect of picture pair (A, B, C), $F(2, 54) = 6.137$, $MSE = 4.572$, $p = .0040$. Senegalese participants ranked pair C as being the most generous in the given scenario ($M = 4.241$), followed by pair B ($M = 3.121$), and lastly pair A ($M = 3.086$). Again, there was no interaction of picture pair and skin color.

American ANOVA. There was a main effect of skin color (dark, light), $F(1, 11) = 15.703$, $MSE = .768$, $p = .0022$. American participants ranked the photos of the darker women as being the more generous in the given scenario ($M = 3.897$) than the photos of the lighter women ($M = 3.103$), in agreement with the hypothesis.

There was a main effect of picture pair (A, B, C), $F(2, 22) = 42.008$, $MSE = 1.537$, $p <$ .0001. American participants ranked pair C as being the most generous in the given scenario ($M = 5.346$), followed by pair B ($M = 2.846$), and lastly pair A as being the least generous ($M = 2.308$). Yet, there was no interaction of picture pair and skin color.

Summary. Overall skin color was not found to be significant for the generosity trait, yet was found to be significant with American participants, but not with Senegalese participants.

American participants ranked the dark skinned women as more generous overall, in agreement with the hypothesis.

5. Greediness.

Overall. I hypothesized that overall participants would rank the lighter skinned women as perceived to be greedier than the darker skinned women. Overall there was a main effect of skin color (dark, light), $F(1, 40) = 11.314$, $MSE = 1.921$, $p = .0017$. Participants ranked the photos of the lighter skinned photos higher than the darker skinned photos ($M = 3.810, 3.222,$ respectively), in agreement with the hypothesis.

Picture pair was also found to be significant (A, B, C), $F(2, 80) = 4.064$, $MSE = 4.724$, $p = .0209$. Participants ranked pair C as being less likely to be greedy in the given scenario ($M = 2.964$), followed by pair B ($M = 3.774$). Pair A was ranked as being most likely to be greedy in the given scenario ($M = 3.810$).

There was an interaction between skin color and picture pair, $F(2, 80) = 7.060$, $MSE = 2.213$, $p = .0015$. Participants ranked in pair A the photo of the lighter woman as being more likely to be greedy in the given scenario ($M = 4.048$) than the photo of the darker woman ($M = 3.571$). In pair B the photo of the darker woman was ranked higher ($M = 3.881$) than the photo of the lighter woman ($M = 3.667$). In pair C the photo of the lighter woman was ranked higher ($M = 3.714$) than the photo of the darker woman ($M = 2.214$). Altogether, the older, darker skinned woman was ranked as being the least likely to be greedy in the given scenario, whereas the lighter skinned woman with the Afro was ranked as being the most likely to be greedy in the given scenario.

Senegalese ANOVA. Skin color was not found to be significant. The main effect of picture pair was also not significant, but the Picture Pair x Skin Color interaction was significant,

$F(2, 54) = 7.001$, $MSE = 2.480$, $p = .0020$. Senegalese participants ranked in pair A the photo of the lighter woman as being more likely to be greedy in the given scenario ($M = 4.034$) than the photo of the darker woman ($M = 3.552$). In pair B, the photo of the darker woman was ranked higher ($M = 4.172$) than the photo of the lighter woman ($M = 3.241$). In pair C, the photo of the lighter woman was ranked higher ($M = 3.690$) than the photo of the darker woman ($M = 2.448$). Altogether, Senegalese participants ranked the photo of the darker woman with makeup as being the most likely to be greedy in the given scenario, whereas the photo of the darker, older woman was ranked the least likely.

American ANOVA. There was a main effect of skin color (dark, light), $F(1, 11) = 22.014$, $MSE = 1.109$, $p = .0007$. American participants ranked the photos of the lighter women as being more likely to be greedy in the given scenario ($M = 4.154$) than the photos of the darker women ($M = 2.846$), as hypothesized.

The main effect of picture pair was not significant, but the interaction between skin color and picture pair was significant, $F(2, 22) = 4.210$, $MSE = 1.201$, $p = .0283$. Americans ranked in pair A the photo of the lighter woman as being more likely to be greedy in the given scenario ($M = 4.077$) than the photo of the darker woman ($M = 3.615$). In pair B, the photo of the lighter woman was ranked higher ($M = 4.615$) than the photo of the darker woman ($M = 3.231$). In pair C, again the photo of the lighter woman was ranked much higher ($M = 3.769$) than the photo of the darker woman ($M = 1.692$). Altogether, American participants ranked the photo of the lighter woman with makeup as being the most likely to be greedy in the given scenario, whereas the photo of the darker, older woman was ranked as the least likely to be greedy in the given scenario.

Summary. Overall skin color was found to be significant for the greedy trait, and skin color was found to be significant with American participants, but not with Senegalese participants. For participants overall as well as for Americans separately, the light skinned women were rated as greedier than the dark skinned women, in agreement with the hypothesis.

6. School.

Overall. I hypothesized that participants would rank the lighter skinned women as perceived to be more likely to have completed their studies at a university than the darker skinned women. Overall there was a main effect of skin color (dark, light), $F(1, 40) = 15.949$, $MSE = 1.673$, $p = .0003$. Photos of the lighter skinned women were ranked higher than the photos of the darker skinned women ($M = 3.825, 3.175$, respectively). Therefore, the participants ranked the photos of the lighter women as thought to be more likely to have completed her studies at a university than the photos of the darker women, in agreement with the hypothesis.

There was a main effect of picture pair (A, B, C), $F(2, 80) = 14.974$, $MSE = 3.946$, $p<.0001$. Participants ranked the photos of the older women (pair C) as less as being least likely to have completed their studies at a university ($M = 2.536$) followed by the women with Afros (pair A) ($M = 3.905$). The women with makeup (pair B) were ranked the highest ($M = 4.060$).

The interaction of skin color and picture pair was not significant.

Senegalese ANOVA. There was a main effect of skin color (dark, light), $F(1, 27) = 11.452$, $MSE = 1.894$, $p = .0022$. Senegalese participants ranked the photos of the dark women as less likely to have completed their studies at a university ($M = 3.149$) than the photos of the light women ($M = 3.851$), as hypothesized.

There was a main effect of picture pair $F(2, 54) = 4.008$, $MSE = 4.405$, $p = .0238$. Senegalese participants ranked the photos of the women with Afros (pair A) as the most likely to

have completed their studies at a university (*M* = 3.931), followed by the photos of the women

with makeup (pair B) (*M* = 3.707), and lastly the photos of the older women (pair C) (*M* =

2.862).

The interaction of skin color and picture pair was not significant.

American ANOVA. There was a marginally significant main effect of skin color (dark,

light), $F(1, 11) = 4.059$, $MSE = 1.376$, $p = .0690$. American participants ranked the photos of the

light women as somewhat more likely to have completed their studies at a university (*M* = 3.769)

than the photos of the dark women (*M* = 3.231), as hypothesized.

There was a main effect of picture pair (A, B, C), $F(2, 22) = 64.279$, $MSE = .923$, $p <$

.0001. American participants ranked the photos of the older women (pair C) as the least likely to

have completed their studies at a university (*M* = 1.808), followed by the photos of the women

with the Afros (pair A) (*M* = 3.846). American participants ranked the photos of the women with

makeup (pair B) as the most likely to have completed their studies at a university (*M* = 4.846).

There was also an interaction of picture type by skin color, $F(2, 22) = 10.236$, $MSE =$

.939, $p = .0007$. American participants ranked the photo of the old, dark woman as being the

least likely to have completed her studies at a university (*M* =1.538), followed by the photo of

the old, light woman (*M* = 2.077), the photo of the dark woman with the Afro (*M* = 2.923), the

photo of the light woman with makeup (*M* = 4.462), the photo of the light woman with the Afro

(*M* = 4.769). American participants ranked the photo of the dark woman with makeup as the

most likely to have completed her studies at a university (*M* = 5.231).

Summary. Overall, skin color was found to be significant. Both American and

Senegalese participants ranked the photos of the light women as more or somewhat more likely

to have completed their studies at a university than the photos of the darker women, in agreement with the hypothesis.

Overall Summary of Findings in Experiment II

After doing three (overall, Senegalese, American) ANOVAs per trait, a total of 18 separate analyses, results revealed that American participants had at least marginally significant results in every trait; whereas, Senegalese participants were found to have significant results only for the school trait. Overall skin color was not found to be significant for the aggressiveness trait, the likelihood to be considered beautiful, the courage trait, and the generosity trait, but it was significant for the greediness and school traits (see Table 1 for a summary).

Contrary to predictions, the Americans ranked the lighter women as somewhat more aggressive than the darker women overall and considered the darker women as generally more beautiful than the lighter women.

In agreement with the hypothesis, the Americans ranked the darker skinned women as more courageous and as more generous than the lighter skin women. Although skin color was found to be significant overall for the greediness trait it was found to be non-significant with Senegalese participants, contrary to the Americans. Participants overall and the Americans separately ranked the light skinned women as greedier than the dark skinned women, in agreement with the hypothesis.

Results revealed that participants overall and both Senegalese and American participants separately ranked the photos of the light women as more or somewhat more likely to have completed their studies at a university than the photos of the darker women, in agreement with the hypothesis.

General Discussion

Various studies have been conducted around the significance of skin tone of African American women in the United States and commonly held beliefs of skin color. Examining this possible relationship is important to understanding how Senegalese people view and interact with others of diverse skin tones. It is equally important to note Senegal's distinct history of skin color differences, as briefly discussed in the Introduction, and how they may or may not have been impacted by Western views, ideals, and beliefs. Investigating these beliefs, biases, and especially perceptions of skin tones in the United States as well as in African countries may shed further light on its broad existence and impact where some may believe there is no influence. However, much of the known literature on skin color only surrounds topics of education, income, beauty or attractiveness, occupation, and spousal status in America.

A large number of studies have examined the effects of skin color, ideals of beauty, and the attainment of beauty standards by non-Caucasian groups. Women overall are pressured into achieving high standards of beauty more so than their male counterparts. This is evident by the plethora of American advertisements towards women of age-defying creams, weight loss solutions, skin lightening creams and lotions, and surgical procedures in order to increase one's beauty in the American society. Unfortunately, "the beauty industry's focus on women reflects the long history of women viewed as products themselves, intended for men's consumption," (Harris, 2009, p. 3). Here we see the intersection of race, as an African American, and gender, as a woman, and the sexism and racism that exist in the lives of this population. Inherently, the beauty industry maintains racism through selling products and images of Eurocentric physical features of beauty including having light skin, a narrow nose, and straight hair. These Eurocentric features have been attributed to being seen as more attractive and intelligent,

therefore African Americans with these features are more advantaged than those without them (Keith, 2009, p. 26). As a result, darker African American women seek to change their skin complexion, eye color, nose structure, and hair texture in striving to obtain white beauty ideals that are impossible to achieve (Keith, 2009, p. 32).

In conjunction with African American women actively seeking to change their physical attributes, many studies have investigated perceived attractiveness of this group in relation to skin tone and psychological effects. One such study manipulated faces with Black, White, and Asian facial features in an attempt to examine the effects of these racial characteristics on perceived facial attractiveness (Belletti, 2008, p. 101). Computer manipulations included physical facial features, hair and skin color as images morphed into varying degrees of the three racial groups. This study found that among the given faces, White faces were perceived as the most attractive. Contrary to the investigator's predictions and previous studies, the face with the most Asian features was found to be the least attractive. Still, this study shows the difference between perceived attractiveness of these three racial groups and the idealization of White or European facial features over other racial groups.

While the investigator researched other studies on skin tone, not much information could be found on the relationship between skin tone and traits such as greediness, courageousness, or generosity in the United States, in Senegal or other African countries.

Limitations

During the collection of data, the investigator noticed that American participants completed testing more quickly than Senegalese participants. American participants may have previously been primed. Therefore, this could be explained by the fact that most American participants as college students may have taken part in a previous research study, may know

someone who has taken part in research, or is generally familiar with research being done in the United States. In contrast, based on personal observations and conversations with some Senegalese people, Senegalese subjects may not have received a lot of experience either participating in research studies or have general knowledge about it. This could have accounted for some of the differences in responses by American and Senegalese participants. Although there were more Senegalese subjects than American subjects, 29 and 13, respectively, Americans were found to have significant results in every trait, despite their low numbers. This leads me to believe that while there may be similar histories of the mixing of European and African blood, the stereotypes attached to the traits tested may only be valid in America.

I also believe that different testing techniques could be more effective than what was employed to test Senegalese people. Particularly, an interview-based approach may better test the hypothesis through asking specific, quantifiable questions. Also, while the official language in Senegal is French, the most common language spoken is Wolof. Thus, an interview-based approach may transcend language and therefore testing may be done outside of Dakar, the capital of Senegal.

Furthermore, the differences in the photos used and ranked by participants could have caused different responses due to the variations of facial expressions, head position, age, presence of make up, and hair wraps or scarves. In future research, these possible confounding variables could be minimized through using a generic, computer-manipulating facial images. In effect this could increase the reliability of the photos and thus testing, yet also decrease ecological validity.

Implications

As described in this study and through previous research, skin color bias and discrimination exist not only within the African American and Senegalese communities, but also in other communities around the world. Naturally, one must question what can be done about this pervasive issue, yet along with other areas in psychology, the only answer is that more research needs to be conducted. Hopefully, through studying the effect of skin color of various populations of people we then can apply concepts to individuals in ways that may help to protect and especially inform them about the destructive effects of colorism and racism. Moreover, the focus on this area of research can potentially bring a wider awareness of this issue in order for individuals to begin to curb their own negative behaviors and subconscious reactions to skin color differences and potentially other stereotypes.

With the pervasiveness of discrimination of others based on skin color, not much can be done on a large scale to address this problem. Yet, as identified by Reid (1976) and Reid and Kelly (1994), the presence of women of color in the psychological literature is far from sufficient. Therefore, the present study directly contributes to adding further information about stereotypes, biases, and discrimination of light and dark skin African/African Americans based on skin color.

Although the United States in particular has made huge strives towards racial equality, we can still see the prevalence of colorism in our society through our current President, Barack Obama. Based off of the "one drop" theory in which any person having "one drop" of African blood "in their racial heritage [is] counted as African-American" (Hall, 2005, p. 8), President Obama is seen and labeled as African American. This is despite the fact that he is in fact Mulatto as his father is Kenyan and his mother is Caucasian. This is a perfect example of the

contemporary privilege of lighter skinned African Americans. As stated earlier, the Presidency of a person of color is a great achievement in America, yet would a darker skinned African American have been voted into office? Research focused on questions like this and other ones will continue to inform our population as we advance our knowledge on the existence and evolution of race and skin tone within and outside of the United States.

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Table 1

The Investigator's Prediction and the Results of the Main Effect of Skin Color in the Overall

Analysis of All of the Participants, of Only the Senegalese Participants, and of Only the

American Participants for Each Trait. NS = not significant, S = significant, L = light, D = dark

Personality Traits	Prediction	Skin Color
AGGRESSIVE	L < D	NS
---Senegalese		NS
---American		**S L > D**
BEAUTY	L > D	NS
---Senegalese		NS
---American		**S L < D**
COURAGEOUS	L < D	NS
---Senegalese		NS
---American		**S L < D**
GENEROUS	L < D	NS
---Senegalese		NS
---American		**S L < D**
GREEDY	L > D	**S L > D**
---Senegalese		NS
---American		**S L > D**
SCHOOL	L > D	**S L > D**
---Senegalese		**S L > D**
---American		**S L > D**

Table 2

The Demographics of Age, Ethnicity, Gender, and Religion of Senegalese and American

Participants

Senegalese (n = 29)	American (n = 13)
Age	Age
18-25 (21)	18-25 (13)
26-33 (4)	
34-40 (2)	
49-55 (2)	
Ethnicity	Ethnicity
Wolof (8)	Caucasian (9)
Pular or Fulani (10)	Caucasian Asian (2)
Serer (3)	Pular-American (1)
Diola (2)	Nigerian-American (1)
Mandink (2)	
Other: (2)	
Cap Verdian (2)	
Gender	Gender
Male (18)	Female (10)
Female (11)	Male (3)
Religion	Religion
Muslim (26)	Muslim (1)
Christian (3)	Christian (5)
	Other (2)
	None (5)
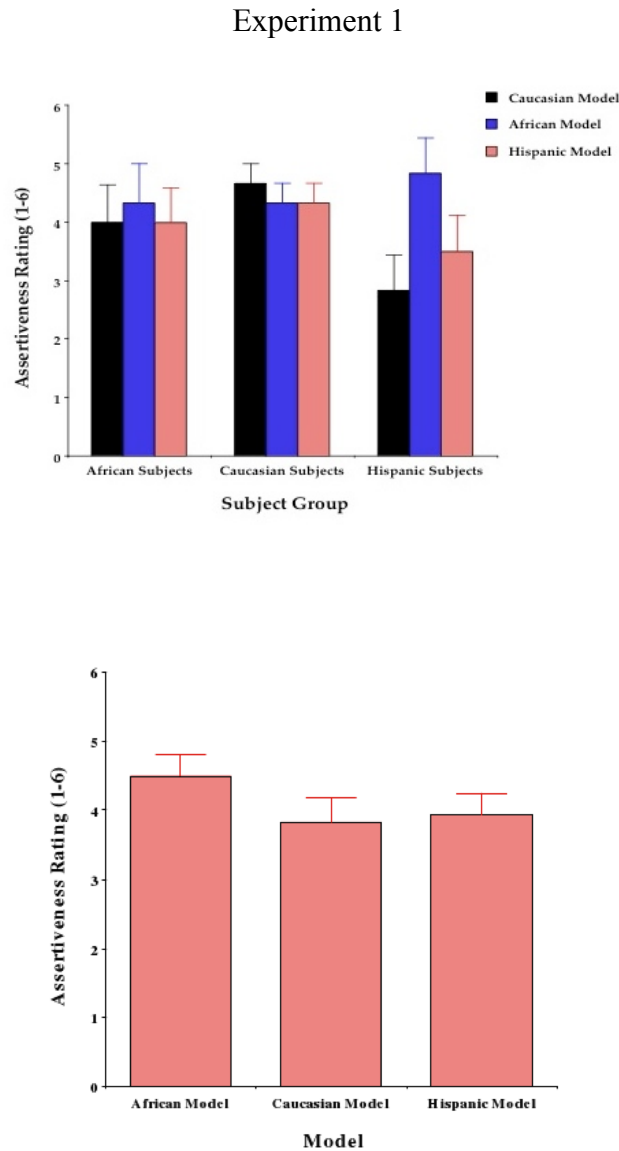
Experiment 1

Figure 1. Mean ratings in Experiment 1. For the top panel, subject group is on the x-axis, and for the bottom panel, model ethnicity is on the x-axis. The top panel depicts the significant interaction of model ethnicity and subject ethnicity. The bottom panel depicts the marginally significant effect of model ethnicity.
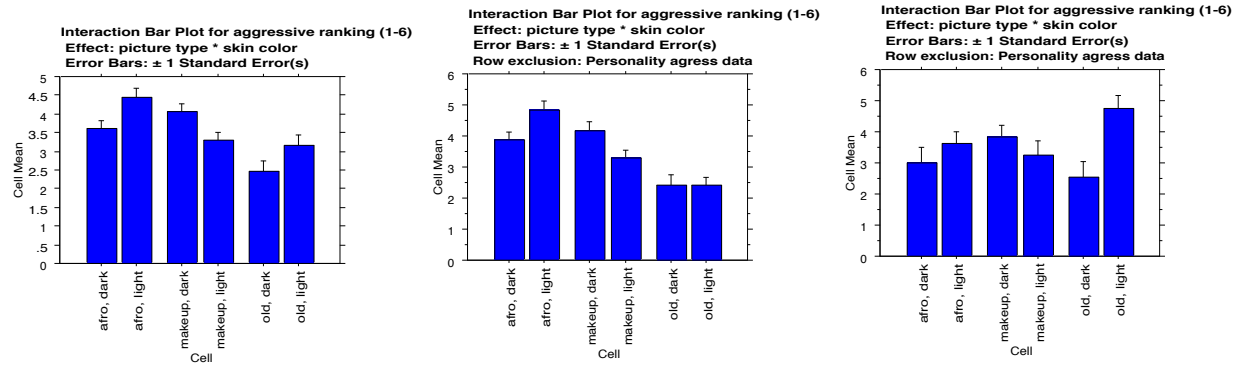
Figure 2.   Interaction of picture pair by skin color for aggressiveness trait in Experiment 2. Left panel depicts overall analysis. Middle panel depicts analysis of only Senegalese subject results. Right panel depicts analysis of only American subject results.
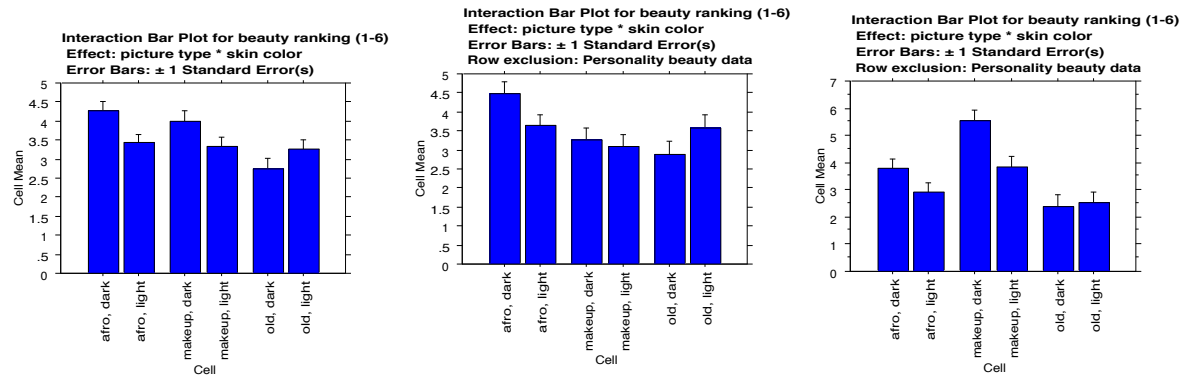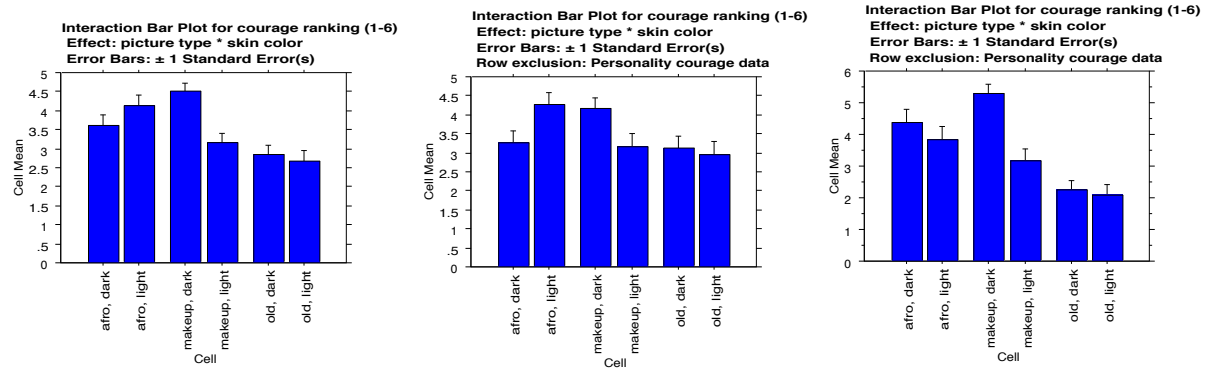
Figure 3. Interaction of picture pair by skin color for beauty trait in Experiment 2. Left panel

depicts overall analysis. Middle panel depicts analysis of only Senegalese subject results. Right

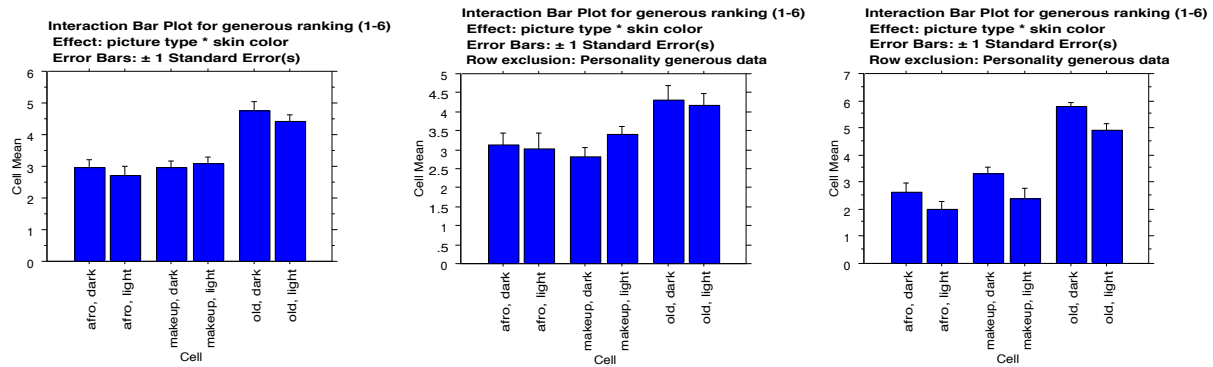panel depicts analysis of only American subject results.

Figure 4. Interaction of picture pair by skin color for courage trait in Experiment 2. Left panel

depicts overall analysis. Middle panel depicts analysis of only Senegalese subject results. Right

panel depicts analysis of only American subject results.

Figure 5. Interaction of picture pair by skin color for generous trait in Experiment 2. Left panel depicts overall analysis. Middle panel depicts analysis of only Senegalese subject results. Right panel depicts analysis of only American subject results.
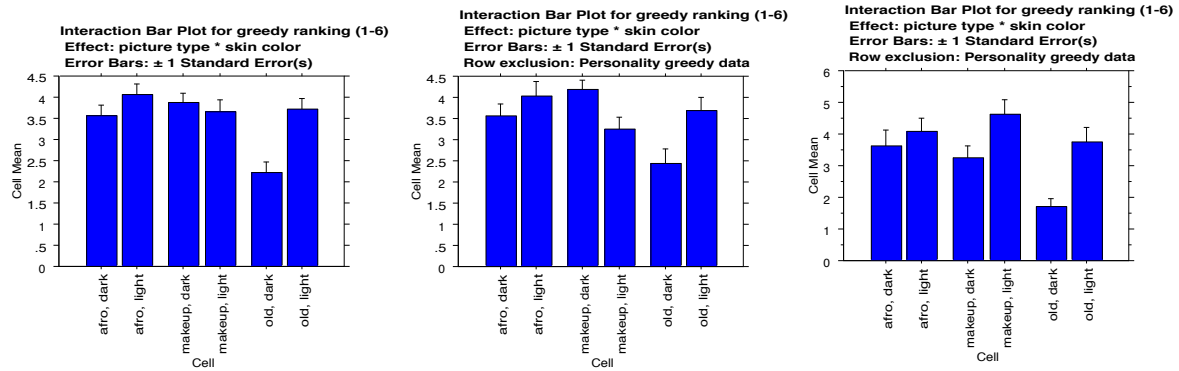
Figure 6. Interaction of picture pair by skin color for greediness trait in Experiment 2. Left panel depicts overall analysis. Middle panel depicts analysis of only Senegalese subject results. Right panel depicts analysis of only American subject results.

Figure 7. Interaction of picture pair by skin color for school trait in Experiment 2. Left panel

depicts overall analysis. Middle panel depicts analysis of only Senegalese subject results. Right

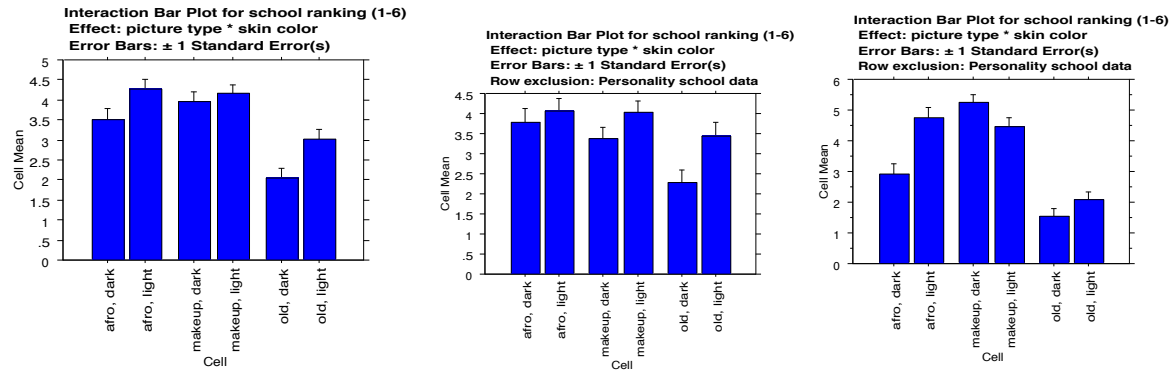panel depicts analysis of only American subject results.

Appendix

Experiment 1

Figure A1. Photos used in Experiment 1 of the Hispanic, African/African American, and Caucasian women, respectively.

Experiment 2

Figure A2. Photos of the women used in Experiment 2. The top panel shows picture pair A, the middle panel shows picture pair B, and the bottom panel shows picture pair C.

Experiment 1 scenario

Assertive: having or showing a confident and forceful personality.

<u>Imagine the following scenario:</u>

On a very hot day in the middle of summer, many people are waiting in line to buy a cool refreshment at an amusement park. Today, a staff person called in sick, so the concessions stand is down one person. Everyone has been waiting for 20 minutes and are becoming inpatient. One person decides to skip most of the line and cut in front of another person.

Experiment 2 scenarios

Aggressiveness:

A woman takes a taxi from Ouakam to downtown and the taxi man agrees that she can pay

1500CFA. Upon arrival at her destination she gives the taxi man 2000CFA, yet the taxi man does

not give her the 500CFA change. Rank order the six women on who would be the most

aggressive, to least aggressive in getting their change. (1=least aggressive, 6= most aggressive)

Generosity:

It is the third day that most families in Dakar have been without running water. Luckily the

family of this woman has water. Rank order the six women on who would be the most generous

to share, to least generous to share with her neighbors who don't have water. (1=least generous,

6= most generous)

Courageousness:

A group of soldiers of men and women need to be deployed to Casamance to subdue rebel

forces. Rank order the six women on who would be the most courageous to volunteer, to least

courageous to volunteer to go. (1=least courageous, 6= most courageous)

Greediness:

A woman marries a man whose first wife died a few years ago. They had one child together, so

now the woman needs to take care of this child. The husband gives money to his new wife in

order to take care of his child. Rank order the six women on who would be the most greedy to

keep the money to spend on herself, to least greedy to spend it on the child. (1=least greedy, 6=

most greedy)

School:

Rank order the six women on who would be the most likely to have completed her studies at a

university (1=least likely to have completed, 6= most likely to have completed)

Beauty:

Rank order the six women on who you think is the most likely to be considered beautiful to least

likely to be considered beautiful. (1=least beautiful, 6=most beautiful)