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Does Skin Color, Facial Shape, and Facial Width to Height Ratio (FWHR) Play a Role in Black Male Facial Evaluation

T. Joel Wade
jwade@bucknell.edu

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Do Skin Color, Facial Shape, and Facial Width to Height Ratio (fWHR) play a role in Black Male Facial Evaluation?

T. Joel Wade[1], LeeAnn Renninger[2]

[1]Department of Psychology, Bucknell University
[2]Lifelabs, New York

ABSTRACT

The present research sought to determine how skin color, facial shape, and facial width to height ratio (fWHR) affect ratings of 10 Black male facial shapes. Based on evolutionary theory and prior research, the rectangular, quadratic, inverted trapezium, and pentagonal faces were hypothesized to receive the highest attractiveness, dominance, maturity, masculinity, strength, and social competence ratings. Additionally, faces with higher fWHRs were expected to receive higher dominance, strength, and masculinity ratings. Smaller, round or oval faces were hypothesized to receive highest warmth ratings. The results were partially consistent with these hypotheses. The examination of the effect of skin color was exploratory. Skin color did not affect ratings of the faces. These findings are discussed in terms of evolutionary adaptations and prior research.

KEYWORDS

Skin color, Facial shape, fWHR, attractiveness, dominance

Very few studies have examined facial attractiveness evaluations for Black men. However, the small body of research conducted shows that facial dimensions play a strong role in the evaluation of Black men's faces (Wade, 2003; Wade, Dyckman, & Cooper 2004; Wade, Irvine, & Cooper, 2004; Zebrowitz, Montepare, & Lee, 1993). Women execute an evolutionary adaptation where they use facial dimensions to determine if a Black man is attractive. This attractiveness assessment serves as a heuristic for determining if the man is healthy, reproductively fit, masculine or feminine, and what type of personality he may possess (cf. Buss, 1989, Buss & Schmitt, 1993; Symons, 1995; Wade, 2003; Wade, et al., 2004a&b). The research findings show that Black men whose facial characteristics index appropriate levels of testosterone are perceived as more: attractive, mature, dominant, masculine, socially competent, and stronger. Specifically, Wade, et al., (2004a) report that the inverted trapezium facial shape is

perceived as most attractive and most socially competent. The reversed oval, trapezium, and inverted trapezium facial shapes are perceived as most mature, strongest, and most dominant and the rectangular facial shape is perceived as most mature (Wade, et al., 2004a). Additionally, the reversed oval, rectangular, and trapezium facial shapes are perceived as most masculine (Wade, et al., 2004a). This is informative. But, additional research is needed. Black men's faces also vary in terms of skin color (skin pigmentation) (Wade, 1996) and skin color biases, directed at, and among Blacks, exist in our society. Also, Jones (2000) points out that skin color affects racial categorization such that the more brown or darker one's skin color is the greater their likelihood of being categorized as Black.

Since the early days of slavery a bias favoring fair skin pigmentation has been a significant and discriminatory distinction made by both white and Black Americans (Lincoln, 1968). Lighter complexioned blacks and "mulattos" were considered genetically superior to dark skinned or "Negroid" featured blacks because light skin and "Caucasoid" features were seen by Whites as a sign of white ancestry (Lincoln, 1968; Myrdal, 1944; Parrish, 1944; Reuter, 1918). Therefore, during slavery, "mulattos" were generally assigned the coveted positions such as house servant, artisan, craftsman, and skilled labors. Consequently, fair skinned slaves commanded a higher price on the auction block (Drake & Cayton, 1962; Myrdal, 1944; Parrish, 1944). Not surprisingly, as Lincoln (1968) points out, skin color became the most important index for the evaluation of African Americans by whites and African Americans and it played a fundamental role in African Americans' search for identity (Lincoln, 1968). A type of internalized racism developed. African Americans identified with whites due to the positions of power and status that whites occupied and resultantly skin color became the basis for most if not all evaluations (Lincoln, 1968).

The civil rights and Black pride movement, coining the phrase "Black is beautiful", claimed to have pulled away from white superiority notions such as this instilling an appreciation for dark skin and "Negroid" features. However, Lincoln (1968) reports that the bias continued despite the civil rights movement. Whites and African Americans continued to evaluate African Americans based on their skin color. Lincoln (1968) points out that fair skinned African Americans were more likely to be hired after civil rights changes called for the hiring of African Americans. Additionally, fair skinned individuals were still considered more attractive, especially women.

More recently, Hughes and Hertel (1990), and Keith and Herring (1991) report that the skin color bias still plagues this country with fair skinned African Americans faring better economically, vocationally, and educationally. Furthermore, consistent with Lincoln (1968), recent research reports that African Americans are still considered more attractive if they have fair skin (Russell, Wilson, & Hall, 1993; Sandler, 1992). Additionally, fair skinned African Americans are more likely to be hired than are dark skinned African Americans (Wade, Romano, & Blue, 2004) consistent with Lincoln (1968). Furthermore, skin color affects judicial decisions. Blair, Judd, and Chapleau (2004) in archival research report that African Americans with dark skin receive harsher criminal sentences than African Americans with fair skin and Eberhardt, Davies, Purdie-Vaughans, and Johnson (2006) report that

African Americans with darker skin tones are more likely to receive the death penalty.

Research shows that skin color also affects stereotyping. Blair, Judd, Sadler, and Jenkins (2002) report that stereotypic attributes of African Americans are more strongly applied to dark skinned African Americans. In addition, Wade and Bielitz (2005) report that dark skinned individuals are rated higher than fair skinned individuals on enthusiasm.

Many studies conclude that skin color affects self-esteem also (Clark & Clark, 1939a, 1939b, 1947; Goodman, 1952; Morland, 1962; Powell-Hopson & Hopson, 1988). However, Banks (1976), Banks, McQuater, and Ross (1979), and Rosenberg (1989) point out that this research involved questionable methodology and unreliable measures of self-esteem. More recent research (Wade, 1996) with a reliable self-esteem measure finds that skin color does not affect self-esteem.

This skin color bias affects Black men and Black women differently. From a marketplace theory perspective Wade and Bielitz (2005) report that African American women with fair skin are rated higher than fair skinned African American men on intelligence and parenting skills. This is not surprising since Wade (1996) reports that dark skin is considered an asset for black men because it is linked with perceived status and dominance. In research examining skin color perception, Wade (1996) points out that many of the highest paid black male athletes and entertainers are dark skinned, and physical status and dominance can play a role in evolutionary theory based adaptations executed to determine a man's attractiveness and parental potential (Buss & Schmitt, 1993; Wade, 2003, 2000). However, Wade and Beilitz (2005) report that skin color does not affect women's ratings of Black men's attractiveness. So, skin color may not affect perceptions of Black men's facial shapes. But, since researchers have not examined facial shape in relation to skin color for Black men, whether or not Black men's skin color and facial shape interact and the pattern such interactions would take is not known. This is an issue that merits examination. The aforementioned research shows that skin color (skin pigmentation) exerts strong effects on many aspects of Black men's lives. Additionally, the face carries the most weight in the perception of Black men (Wade, 2003, 2000) and facial attractiveness indicates actual health, actual longevity, and actual reproductive fitness. Shackelford and Larson (1999) report that men with attractive faces have greater cardiovascular health. Henderson and Anglin (2003) report that men with attractive faces live longer and Soler, Nunez, Gutierrez, Nunez, Medina, Sancho, Alvarez, and Nunez (2003) report that men with attractive faces have higher quality semen. But, are there additional factors that have been omitted from research examining Black male facial attractiveness?

Recent research examining male facial perception indicates that the ratio of a man's facial width to his facial height (fWHR) plays a role in the perception of his face. This is not surprising since fWHR indexes testosterone levels (Lefevre, Etchells, Howell, Clark, & Penton-Voak, 2014; Lefevre, Lewis, Perret, & Penke, 2013) and testosterone levels, as indexed by facial cues, play a role in how men's faces are perceived (Cunningham, et al., 1990; Johnston, et al., 2001; Wade, et al., 2004a&b). Carre´, McCormick, and Mondloch (2009) and Lefevre, et al., (2014)

also report that faces with higher fWHR are perceived as more aggressive. Also, in a meta-analysis Geniole, Denson, Dixson, Carre´, and McCormick, (2015) report that faces with higher fWHRs are rated as: less attractive, more threatening, and more dominant. Additionally, men with larger fWHRs are more likely: to cheat (Geniole, Keyes, Carre´, & McCormick, 2014; Haselhuhn & Wong, 2012; Stirrat & Perret, 2012, 2012), and endorse prejudicial beliefs (Hehman, Leitner, Deegan, & Gaertner, 2013). fWHR has not been included in research examining Black male facial attractiveness. This omission needs to be addressed since male facial attractiveness has reproductive significance (Wade, 2003; Wade, Dyckman, & Cooper 2004; Wade, Irvine, & Cooper, 2004). Also, we do not know whether or not fWHR differentially affects the evaluations of Black men with light and dark skin pigmentation.

Since the findings with respect to the effect of skin color on the perception of Black men's facial attractiveness are equivocal, and skin color and fWHR have not been considered together, research examining Black male facial attractiveness that incorporates these factors was conducted.

Using a repeated measures design and the 10 Black male facial shapes identified by physical anthropologists ((1) elliptic, (2) oval, (3) reversed oval, (4) round, (5) rectangular, (6) quadratic, (7) rhombic, (8) trapezium, (9) inverted trapezium, and (10) pentagonal (Comas, 1960)) the present research sought to determine how fWHR, and skin color affect evaluations of Black men's facial attractiveness, and reproductively significant personality traits.

HYPOTHESES

Faces with higher fWHRs should receive higher dominance, masculinity, and strength ratings. Additionally, faces with larger facial dimensions (rectangular, quadratic, inverted trapezium, and pentagonal) should receive highest attractiveness, maturity, dominance, masculinity, social competence, and strength ratings, whereas faces with smaller dimensions (elliptical, oval, and round) should receive highest warmth ratings. Because research on skin color (skin pigmentation) and Black male attractiveness is equivocal it is not clear whether skin color (skin pigmentation) will have an effect.

METHODS

Participants

Twenty-nine White women ranging in age from 18-22 years took part. Since prior research reports that race does not significantly affect women's ratings of Black men's faces and Whites and Blacks respond similarly to Blacks' skin color (Gergen, 1968, Lincoln, 1968; Wade & Beilitz, 2005, Wade, et al., 2004a), Black women participants were not sought after.

Procedure

Participants were told the research was investigating how individuals perceive images generated by various type of image presentation media. They were told this particular experiment dealt with computer generated faces. Participants were told they would see a series of faces taken at random from a large selection of computer representations of faces. They were each then given a sheet containing the ten faces in color with dark skin-tone or with light skin-tone.

Facialmetrics (Cunningham, 1986, 1990) of the 10 faces were computed, see Table 1. The facialmetrics were calculated by two independent judges in prior research (Wade, et, al., 2004a). Faces were enlarged to fit an 8 ½ × 11 page and measured using a standard ruler. Measurements were in centimeters. The average correlation among raters was, r =.996, p< .05. Table 1 shows the facialmetrics of the 10 faces.

Table 1. Mean Facial Dimensions for Each of the 10 Facial Shapes.

Face	Length of face	cheekbone width	mouth width	Forehead height	eye width	cheekbone prominence	cheek width	nostril width	nosetip width	chin length
Elliptic	20.88	13.88	12.30	.25	.19	.08	.59	.28	.17	.21
Oval	19.15	13.95	10.70	.25	.19	.17	.56	.25	.15	.19
Reversed Oval	20.40	14.08	12.35	.25	.23	.08	.34	.32	.13	.16
Round	17.52	14.50	13.03	.19	.18	.08	.74	.31	.16	.21
Rectangular	19.65	14.33	13.53	.23	.20	.04	.69	.28	.14	.16
Quadratic	17.75	14.00	13.00	.24	.23	.06	.75	.28	.16	.20
Rhombic	19.98	13.95	10.48	.26	.22	.17	.52	.33	.18	.16
Trapezium	16.45	12.75	13.63	.26	.21	-.01	.83	.28	.12	.20
Inverted Trapezium	17.75	14.15	12.70	.31	.22	.08	.72	.29	.16	.19
Pentagonal	19.77	13.75	12.43	.28	.21	-.07	.64	.26	.14	.15

***note*: from Wade, Dyckman, and Cooper (2004). Dimensions are in centimeters. Higher numbers mean larger, taller, longer, wider, more prominent, etc.**

Table 1 shows that the rectangular, quadratic, inverted trapezium, and pentagonal faces are the faces with larger dimensions and the oval and round faces are the faces with smaller dimensions. fWHRs (Lefevre, et al., 2014) were also computed for each face, see Table 2.

Table 2. f(WHR) for Each Face

Face	f(WHR)
1. Elliptic	1.83
2. Oval	1.52
3. Reversed Oval	1.60
4. Round	1.85
5. Rectangular	1.67
6. Quadratic	1.98
7. Rhombic	1.66
8.Trapezium	1.89
9. Inverted Trapezium	1.93
10. Pentagonal	1.82

***note*: Higher numbers mean higher f(WHR)**

Table 2 shows that the Quadratic, Inverted Trapezium, Trapezium, Round, Elliptical, and Pentagonal faces have the highest fWHRs. To verify the skin color of the 10 faces, the faces were given to a sample of 18 other women who were asked to rate them on a 7 point scale, 1=light skinned to 7 = dark skinned. The 10 faces were presented in a two different orders. A repeated measures ANOVA revealed no order effect and a multivariate interaction effect for face and skin color, $F(6, 9) = 12.86$, $p < .003$, $\eta^2 = .95$, observed power = .994, see Table 3.

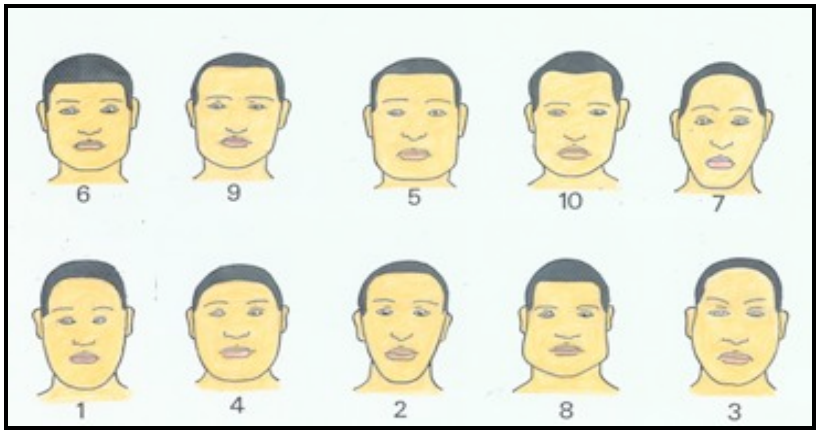
Table 3. Mean perceived skin color ratings as a function of stimulus face and stimulus skin color

	Skin color	
Face	Light	Dark
Elliptic	4.33 (1.41)	4.89(.93)
Oval	4.22(1.20)	5.00(1.00)
Reversed Oval	4.33(1.41)	6.11(.93)*
Round	4.33(1.23)	6.11(.78)**
Rectangular	4.11(1.27)	5.22(1.20)[a]
Quadratic	4.22(1.64)	4.56(1.24)
Rhombic	3.78(1.64)	5.78(1.09)*
Trapezium	5.11(1.36)	5.67(1.00)
Inverted Trapezium	3.89(1.45)	5.44(1.24)*
Pentagonal	3.89(1.54)	6.22(.97)**

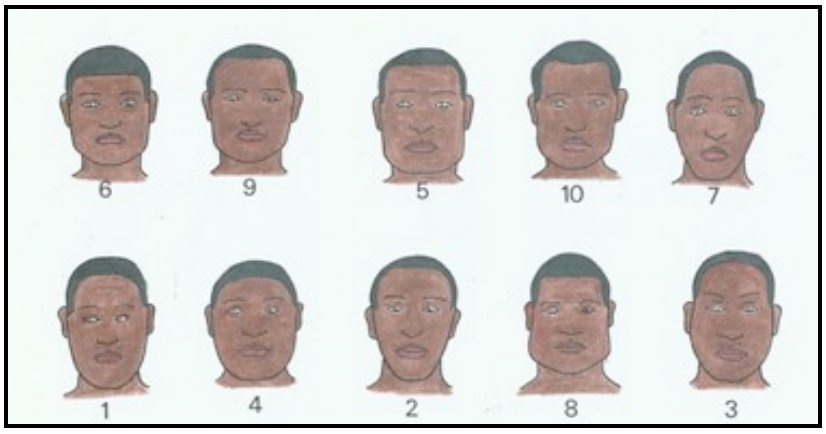
Note: higher numbers mean darker skin color, * = p< .05, ** = p < .005, a = p < .075, standard deviations are in parentheses.

Table 3 shows that faces, 3(reversed oval), $T(16) = -3.15$, $p < .006$; 4(round), $T(16) = -3.67$, $p < .002$; 5(rectangular), $T(16) = -1.91$, $p < .075$; 7(rhombic), $T(16) = -3.04$, $p < .008$; 9(inverted trapezium), $T(16) = -2.45$, $p < .026$; and 10(pentagonal), $T(16) = -3.85$, $p < .001$, were perceived as significantly darker when they had a darker skin color and the means for faces 1(elliptic), 2(oval), 6(quadratic), and 8 (trapezium) were in the predicted direction, i.e., seen as darker when they had dark skin color. Also, overall, a significant main effect for skin color occurred $F(1,14) = 6.67$, $p < .022$. Overall, the faces were perceived as darker when they had dark skin color, $M = 4.35$, $SEM = .34$ versus $M = 5.68$, $SEM = .39$ for fair and dark skinned respectively. The light and dark faces were then presented to the aforementioned sample of 29 women in two different orders, see Figure 1.

Figure 1. The 10 Facial shapes in Light and Dark skin tone (order 2 shown).



Light Skin tone



Dark Skin tone

Participants rated the faces on the following 7 point scalar items: unattractive-attractive, feminine-masculine, weak-strong, cold-warm, immature-mature, submissive-dominant, and socially inept-socially competent. To minimize any psychological tension associated with Whites rating Black faces the experimenter was a White female.

RESULTS

A series of 2(order of presentation of faces) x 2(skin color) x 10(facial shape/fWHR) Mixed Model ANOVAs were computed. Order of presentation was not a significant factor. Skin color was also not a significant factor. The facial shapes differed in: attractiveness, multivariate $F(9, 17) = 11.26$, $p < .0001$:, masculinity/femininity, multivariate $F(9, 17) = 16.50$, $p < .0001$,; strength, $F(9, 17) = 13.85$, $p < .0001$,; warmth, multivariate $F(9, 17) = 11.06$, $p < .0001$,; maturity, multivariate $F(9, 17) = 24.04$, $p < .0001$,; dominance, $F(9, 17) = 10.980$, $p < .0001$,; and social competence, multivariate $F(9, 17) = 4.38$, $p < .004$, see Table 4 Univariate analyses associated with each of the aforementioned items were also significant.

Bonferroni corrected pairwise comparisons, $p < .05$, revealed that faces 5 (rectangular), 6 (quadratic), 9 (inverted trapezium), and 10 (pentagonal) were rated as most attractive and as most socially competent. Additionally, faces 3 (reversed oval), 5 (rectangular), 8 (trapezium), and 10 (pentagonal) were perceived as most: masculine, mature, dominant, and strongest. Faces 1 (elliptic), 2 (oval), and 4 (round) were perceived as having the most warmth. Additionally, some faces with highest fWHRs, 5(rectangular), 8(trapezium), and 10(pentagonal) received highest dominance, strength, and masculinity ratings. Faces 1 (elliptic), 2 (oval), and 4 (round) received highest warmth ratings.

DISCUSSION

Consistent with prior research (Wade, et al., 2004a&b; Zebrowitz, et al., 1993) faces with larger dimensions were perceived as more: attractive, mature, dominant, masculine, socially competent, and stronger and faces with smaller dimensions were perceived as warmer. Furthermore, consistent with Wade and Beilitz (2005) facial skin color did not affect ratings.

The rectangular, quadratic, inverted trapezium, and pentagonal faces were rated as most attractive and most socially competent. The reversed oval, rectangular, inverted trapezium, and pentagonal faces were perceived as most mature, strongest, most masculine, and most dominant. These findings are consistent with prior researchers who report that male faces with larger dimensions and larger characteristics are considered most reproductively fit (Cunningham, et al., 1990; Johnston, et al., 2001; Wade, et al., 2004a&b; Zebrowitz, et al., 1993). These faces received the highest ratings because they index the characteristics associated with testosterone and male reproductive potential such as large chins, and prominent cheekbones and the expressive/nurturant characteristics of larger eyes.

Table 4. Mean attractiveness, dominance, femininity/masculinity, strength, warmth, maturity, and social competence ratings as a function of facial shape.

Facial Shape	Attractiveness	Dominance	Femininity/Masculinity	Strength	Warmth	Maturity	Social Competence
Elliptic	2.36^{ae}(1.17)	2.38^{abcdefg}(1.51)	3.79^{abc}(1.73)	2.86^{abcde}(1.65)	5.00^{a}(1.22)	2.34^{abcdefgh}(1.45)	3.07^{abcdefg}(1.05)
Oval	3.62^{ab}(1.59)	3.41^{abcg}(1.05)	4.45^{bcdef}(1.58)	3.55^{abc}(1.58)	5.34^{b}(1.02)	3.90^{abf}(1.61)	4.79^{abd}(1.45)
Reversed Oval	2.62^{bce} (1.15)	5.86^{abc}(1.14)	5.62^{abc}(1.06)	5.76^{abc}(1.22)	1.97^{abcdef}(.72)	5.41^{ac}(1.54)	4.03^{abcdf}(1.87)
Round	2.17^{bcde}(1.23)	3.45^{acd}(1.19)	4.24^{fcd}(1.45)	3.90^{acd}(1.75)	5.17^{acd}(1.22)	3.38^{acd}(1.48)	4.03^{abdeh}(1.54)
Rectangular	4.31^{acde}(1.58)	5.10^{abde}(1.44)	5.93^{abde}(1.52)	5.31^{abde}(1.53)	4.00^{abcde}(1.46)	5.86^{abde}(1.39)	5.34^{acde}(1.53)
Quadratic	4.31^{abcdf}(1.73)	4.10^{acef}(1.75)	4.00^{bcef}(1.71	4.14^{acef}(1.56)	4.45^{bcf}(1.52)	3.66^{acef}(1.82)	5.14^{acdf}(1.08)
Rhombic	3.28^{acdefg}(1.36)	3.62^{aceg}(1.51)	4.24^{bceg}(1.51)	3.86^{aceg}(1.65)	4.10^{abcdg}(1.35)	4.31^{acdefgh}(1.69)	4.31^{agefg}(1.67)
Trapezium	2.48^{befg}(1.35)	4.83^{abcdg}(1.63)	5.69^{abdfgh}(.97)	5.59^{abdfgh}(1.20)	3.76^{abcdh}(1.36)	5.03^{abdefgh}(1.31)	4.41^{aefh}(1.34)
Inverted Trapezium	4.48^{abcdfg}(1.53)	5.48^{abdfgi}(1.50)	4.55^{cehi}(1.55)	4.62^{bceghi}(1.36)	4.00^{abcdi}(1.62)	5.17^{abdefgi}(1.19)	5.41^{abcdghi}(1.43)
Pentagonal	4.66^{abcdg}(1.54)	5.31^{abdfg}(1.91)	5.38^{abdefgi}(1.56)	5.41^{bfgi}(1.73)	3.79^{abcd}(1.57)	5.07^{abcdefg}(1.78)	5.38^{abcdgh}(1.86)

note: **Each face was compared to the other faces. Reading down each column, each face was given a letter: a = elliptical, b = oval, c = reversed oval, etc. Means with the same superscripts are significantly different, *p*< .05. Higher numbers mean more: attractive, dominant, masculine, strength, warmth, maturity, and social competence. Standard deviations are in parentheses.**

Alternatively, one might argue that the aforementioned faces receive the highest ratings due to social learning. From a social learning point of view participants may have rated these faces highest due to more experience with them. It is conceivable that these attractive facial shapes are more likely to be seen in the media. However, additional research is necessary in order to ascertain the validity of this explanation. But, if true, this explanation does not rule out evolutionary explanations as culture can influence evolutionary adaptations (Buss, 1995; Crawford & Anderson, 1979; Symons, 1995; Wade, 2003) and evolutionary adaptations can influence culture (Murray & Schaller, 2010; Schaller & Murray, 2011).

The hypothesis for faces with smaller dimensions was also supported. The elliptic, oval, and round faces were rated as warmer consistent with Zebrowitz, et al., (1993) and Wade, et al., (2004a). These faces are rated in this manner because they index the characteristics associated with expressiveness and nurturance such as large eyes and facial roundness. These characteristics are associated with expressiveness because they serve as heuristics for lower testosterone levels that are associated with expressiveness and nurturance (Symons, 1995; Wade, 2003, 2000). Alternatively, the aforementioned social learning explanation for the pattern of findings associated with the larger faces may also be appropriate here. From a social learning standpoint participants may have rated these facial shapes highest in warmth because they are more likely to be seen in the media. However, additional research is necessary in order to ascertain the validity of this explanation. But, once again if true, this explanation does not rule out evolutionary explanations as evolutionary adaptations can influence culture (Murray & Schaller, 2010; Schaller & Murray, 2011) and culture can influence evolutionary adaptations (Buss, 1995; Crawford & Anderson, 1979; Symons, 1995; Wade, 2003).

Skin color may not matter for ratings of Black men's attractiveness and reproductive fitness assessments because skin color plays a greater role in women's reproductive fitness than in men's reproductive fitness (van den Berghe & Frost, 1986).

The findings for fWHR were not fully consistent with prior research. The Quadratic, Inverted Trapezium, and Pentagonal faces, faces with high fWHRs, were rated as the most attractive faces. Geniole, et al., (2015) reported that faces with high fWHRs are not perceived as attractive. The findings from the present research suggest this is not true for African American male faces. African American male faces that appear to have higher testosterone markers are viewed as appealing. This suggests that women find higher levels of testosterone appealing in African American men. Since testosterone affects aggressive/competitive behavior (Booth, Shelley, Mazur, Tharp, & Kittok, 1989; Dabbs & Morris, 1990) this may be adaptive for women when evaluating the attractiveness of African American men because as a product of racial discrimination African American men may have to be more competitive in order to gain high status, and status is important for women's mate selection decisions (Buss, 1989, 2006).

The Elliptical and the Round faces received highest warmth ratings which is not consistent with prior fWHR research. In prior research, faces with high fWHR were perceived as most dominant, and most threatening (Geniole, al., 2015), and most aggressive (Carre´, et al., 2009; Lefevre, et al., 2014). The findings from the

present research suggest that this is not true for African American male faces. Some African American male faces that have high fWHRs are still viewed as warm(friendly). There may be some adaptive advantage for women to make such perceptions, but at present that adaptation is not known and additional research is necessary to ascertain why this perception occurs and whether it is adaptive or not.

Consistent with Geniole, et al., (2015) some of the higher fWHR faces, the Rectangular, Trapezium, and Pentagonal, were perceived as most dominant. These faces were also seen as strongest, and as most masculine. These faces were seen as most dominant, strongest and most masculine because fWHR indexes testosterone levels and men with higher testosterone levels are more dominant, stronger, and more masculine (Johnston, et al., 2001; Wade, et al., 2004a&b).

CONCLUSION

Based on the findings one can conclude that that facial shape plays a role in the perception of African American men's faces. But, skin color does not play a role, and fWHR operates somewhat differently with respect to the perception of African American men's faces. These results further support evolutionary theory suggesting that facial characteristics that index dominance, maturity, strength, and social competence are more important determinants of African American men's attractiveness than skin color is. These findings add to the small body of literature on the social perception of African American men and further add to the value of evolutionary theory as a tool for explaining social behavior and perception.

Limitations and Future Research

The present research did not include Black women as participants. Follow up research with a sample of Black women is necessary to further ascertain that African American men's skin color does not play a role in observer's perceptions of their faces and that fWHR operates somewhat differently with respect to the perception of African American men's faces. Additionally, the present research did not include White men as participants. Since white men are more racially biased than white women (Ekehammar & Sidanius, 1982; Nosek, Banaji, & Greenwald, 2002; Schuman, Steeh, Bobo, & Krysan, 1997) and are less egalitarian than white women (Sidanius, Levin, Liu, & Pratto, 2000), white men may give lower ratings than white women do, and skin color may be a factor for white men's ratings of Black men with varying facial dimensions. Therefore, future research should examine whether or not skin color, facial shape, and facial width to height ratios (fWHRs) affect white men's evaluations of black men's faces.

While the skin color manipulation was effective in the present research according to the manipulation check, additional research with enhanced skin color manipulations should be conducted as more lifelike skin color manipulations would lead to more ecologically valid findings. Future research should also examine actual light and dark skinned African American men's faces that match the 10 shapes identified since actual faces may also carry more ecological validity than drawings. Lastly, since women's fertility cycles influence their evaluation of men's faces (Penton-Voak & Perrett, 2000; Jones, Perrett, Little, Boothroyd, Cornwell, Feinberg,

Tiddeman, Whiten, Pitman, Hillier, Burt, Stirrat, Smith, & Moore, 2005; Johnston, Hagel, Franklin, Fink, & Grammer, 2001) future research should examine whether fertility cycles affects women's evaluations of the 10 facial shapes in light and dark skin tones.

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