Race and Advertising: Ethnocentrism or "Real" Differences in Physical Attractiveness? Indirect Evidence from China, Malaysia, and the United States

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Implicit in the concept of *ethnocentrism* is the idea that people will consider members of their own race or ethnic group to be more attractive than members of other groups. If so, one would expect advertisers to take advantage of such preferences by choosing "local" models when promoting clothing fashions and other products. A contrary view is that judgments of physical attractiveness are to a substantial degree neurologically "hard-wired" and evolved similarly throughout the world. With the assumption that fashion models and manikins are considered highly attractive, the present study recorded the race of models and manikins publically displayed in city malls in China, Malaysia, and the United States. Caucasian (white, European) models were found to be mainly utilized in all three countries, especially in regard to clothing fashion displays. Even advertisements for cosmetics and fashion accessories were "Caucasian-biased" in China and Malaysia although less so than in the U.S. and less so than advertisements for clothing fashions. Findings call into question the relevance of *ethnocentrism* in determining the choice of fashion models used in advertising, and are instead consistent with other evidence of universal standards of physical beauty that advertisers rely on to help promote their products.

Key Words: Race; Nationality; Physical attractiveness; Fashion models; Manikins; Fashion billboard advertisements.

Since William Sumner coined the term *ethnocentrism* over a century ago, it has become a central tenet in studying race and ethnicity. As he defined it, *ethnocentrism* refers to people's tendency to use their own group as a standard for judging the worth of others (Sumner, 1906, p. 13).

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Regarding physical attractiveness, it has been asserted that people throughout the world view members of their own group more favorably than members of other groups (Banner, 1983; Wolf, 1991).

Empirical support for the above conclusion came from a recent study by Honekopp (2006). He asked samples of blacks, whites, and Asians attending college in Germany to rate photographs of persons in each of these three racial groups in terms of physical attractiveness. The average ratings for same-race photographs were all significantly higher than the ratings for different-race photographs. More details surrounding this study will be presented in the discussion.

In recent decades, a different perspective of physical attractiveness has emerged. This perspective asserts that most people share common standards of physical attractiveness, and that these standards appear to have a largely unlearned neurological underpinning (Berry & McArthur, 1985; Cela-Conde, Ayala, Munar, Maestu, Nadal, Capo, et al., 2009; Jacobsen, Schubotz, Hofel, & von Cramon, 2006; Kawabata & Zeki, 2004).

One line of evidence supporting this alternative view has come from the ratings of the same photographs by people with quite different cultural backgrounds. In the first of these studies, a sample of American men and women were asked to rate the physical attractiveness of a set of photographs of the opposite sex (also from the United States) (Bernstein, Lin, & McClellan, 1982). The photographs were then shown to samples of men and women from rural China and rural Africa in order to obtain their ratings. The correlations between the average ratings of people in these three countries were surprising high; all surpassed r = .90.

In a subsequent series of studies, Cunningham, Roberts, Wu, Barbee, and Druen (1995) documented high levels of agreement (i.e., r = .91) across Asian, Hispanic, and American populations in average ratings of the physical attractiveness of a set of human photographs. At least two other studies have confirmed that there is a high degree of

cross-cultural agreement in physical attractiveness judgments of human faces (Perrett, May, & Yoshikawa, 1994; Zebrowitz, Voinescu, & Collins, 1996). Based on an extensive review, Langlois, Kalakanis, Rubenstein, Larson, Hallam, and Smoot (2000, p. 399) concluded that "cross-cultural agreement was even higher, r = .94," than the average agreement for within-cultural studies, r = .88.

Support for the idea that people throughout the world use very similar criteria when judging physical attractiveness has come from newborns. In these studies, babies less than a week old were shown photographs on television or computer monitors that were previously rated by adults in terms of physical attractiveness. Babies were allowed to control the length of time they viewed each photograph, usually by sucking on a pacifier whenever they wanted to move to another image. All of these studies revealed that, on average, infants spent more time viewing the photographs that adults rated highest in attractiveness (Geldart, Maurer, & Henderson 1999; Kramer, Zebrowitz, San Giovanni, & Sherak, 1995; Langlois, Roggmann, Casey, Ritter, Rieser-Danner, & Jenkins, 1987; Samuels, Butterworth, Roberts, Graupner, & Hole, 1994; Samuels & Ewy, 1985).

Added support for the idea that there are more or less universal standards of human facial beauty comes from a study by Jones and Hill (1993). They compared the judgments of physical attractiveness made by people in five cultures (Brazil, United States, Russia, Ache, and Hiwi). Results indicated that the females who were considered most attractive in all five cultures tended to exhibit exaggerated neotenous (infant-like) traits, such as large eyes, small noses, and full lips (also see Jones, 1995; Kramer, Zebrowitz, San Giovanni, & Sherak, 1995).

A final line of evidence came from comparing models used in women's magazines in three countries – Singapore, Taiwan, and the United States. Working from the perspective that judgments of attractiveness are ethnocentrically based, Frith, Cheng, and Shaw (2004, p. 56) tested the hypothesis that "Asian models would be used more frequently in Asian magazines, and Western models

would be used more frequently in U.S. magazine advertisements." Contrary to this hypothesis, the researchers found that Caucasian models were utilized overwhelmingly in the magazine ads of all three countries.

Collectively, the above studies bring one to a controversial possibility: Perhaps, some racial or ethnic groups are considered on average more physically attractive than others *even by members of other groups.* If such a hypothesis was true, it would challenge the belief that at least some aesthetic judgments are ethnocentrically determined and provide further support for the idea that largely unlearned neurological factors are responsible for physical attractiveness judgments that all major racial groups share.

The present study was undertaken to indirectly explore the ethnocentric versus the universal standard perspectives. This was done by examining the race of models and manikins of both sexes used in public advertising for clothing and other commercial products in three different countries. The inferential reasoning was as follows: To the extent that human beauty is ethnocentrically determined, models and manikins should resemble the race of the culture in which they are displayed, as hypothesized by Frith et al. (2004). On the other hand, if standards of beauty are the result of unlearned neurological programming and some races surpass others in terms of average attractiveness, the proportion of races in the models and manikins used to promote fashions should be similar in all cultures. The only assumption one must make to explore this possibility is that fashion models and manikins are unusually attractive.

Method

Three distinct countries – China, Malaysia, and the United States – were compared regarding the race of the models used in publically displayed commercial advertisements. Observations were made between 2009 and 2010 during extensive visits to all three countries as the authors walked past store fronts and strolled through shops. Recordings were made of 172 publically displayed billboards with photographs of clothing fashion models in China, 273 in Malaysia, and 222 in the United States. Also observed

were billboard photograph displays of models for public ads for cosmetics, hair products, shoes, accessories, jewelry, electronics, and household goods – 86 in China, 160 in Malaysia, and 61 in the United States. Furthermore, 140, 163, and 142 manikins were observed in each of these three countries, respectively (all of which were displaying clothing fashions). Only models and manikins that appeared to be adolescent or older were recorded.

The race of each model and manikin was classified into one of four categories: Caucasian (white, European ancestry), Asian, black, and mixed/ambiguous/other. To assess the reliability of the ratings, a subsample of 50 clothing models in Malaysia were independently judged by two raters regarding the models' sex and race. All 50 ratings were in total agreement regarding the sex of the models, and only one inconsistency occurred regarding the assessment of race. This exception involved one rater identifying one male model as black while the other rater assigned the same model to the category of mixed/ambiguous/other.

The specific cities sampled were Shanghai and Chongqing (China), Kuala Lumpur (Malaysia), and Mission Viejo and Temecula (United States). All observations were made in shopping districts of large cities in each of these three countries, primarily located at indoor or outdoor malls. No rigorous protocol was followed in selecting the sites to be sampled.

The statistical significance of findings was assessed using chi square. Because of low, and, in some cases, zero observations, the categories of black and mixed/ambiguous/other were combined. Wherever a zero remained in a cell, a "1" was inserted for analysis purposes. To further adjust for the low number of observations in certain cells, the Yates' chi square adjustment was utilized throughout.

Results

The findings are presented in Tables 1-3. Examination of these tables reveals that in all three countries, many more female models and manikins were on public display than

male models and manikins. For the three countries combined, 65% of the clothing fashion models, 74% of the models for non-clothing products (mainly cosmetics and wearing accessories), and 75% of the manikins were females.

Regarding race differences, Table 1 shows that the vast majority of both male and female models used in the clothing fashion ads for all three countries were Caucasian. A chi square test revealed that the proportion of Caucasian models displayed in China, Malaysia, and the United States were in fact statistically equivalent. For the female clothing models, the chi square value concerning the four-category race differences was $\chi^2_F = 6.16$ (df = 4, p. = .188) and, for males, the value was $\chi^2_M = 7.92$; df = 4, p. = .095).

Table 1   Models for clothing fashions according to sex, race/ethnicity, and country**.**

Sex	Country	Race/Ethnicity of Models			
		Caucasian (White)	Asian (Oriental)	Black	Mixed/Ambiguous
Female Models	China	102 (94.4%)	6 (5.6%)	0 (0.0%)	0 (0.0%)
	Malaysia	168 (96.0%)	5 (2.9%)	1 (0.6%)	1 (0.6%)
	United States	136 (91.9%)	4 (2.7%)	8 (5.4%)	0 (0.0%)
Male Models	China	58 (81.7%)	6 (8.5%)	3 (4.2%)	4 (5.6%)
	Malaysia	91 (92.9%)	2 (2.0%)	4 (4.1%)	1 (1.0%)
	United States	60 (83.3%)	2 (2.8%)	8 (11.1%)	4 (5.6%)

While their overall proportions were small in all three countries, one can see that greater proportions of the male models were black/African relative to female models in Table 1. We sought to determine if this sex difference was statistically significant by comparing males and females who were Caucasian, Asian, and Mixed/Ambiguous with males and females who were black in all three countries combined. This indicated that a significantly higher proportion of black males than black females were utilized as clothing models

($\chi 2$ = 6.41; df = 1, p = .011).

Table 2 presents findings having to do with ads for non-clothing products, such as cosmetics, eyewear, shoes, jewelry, and even electronics. For this broad grouping of ads, one significant difference was found between countries, the nature of which was as follows: Both in China and in Malaysia, Asian females appeared in close to a third of all the ads, but in the United States, less than 15% of the ads displayed Asian females ($\chi 2_F$ = 28.36, df = 4, p = .000). One sees the same tendency for males, but the differences failed to be statistically significant ($\chi 2_M$ = 6.81; df =4, p = .147). Checking back on the raw data revealed that the greatest use of Asian female models in China and Malaysia were in ads for cosmetics and electronics.

Table 2   Models for cosmetics, hair products, shoes, accessories, jewelry, electronics, and household products according to sex, race/ethnicity, and country.

Sex	Country	Race/Ethnicity of Models			
		Caucasian (White)	Asian (Oriental)	Black	Mixed/Ambiguous
Female Models	China	39 (63.9%)	22 (36.1%)	0 (0.0%)	0 (0.0%)
	Malaysia	90 (69.8%)	38 (29.5%)	1 (0.8%)	0 (0.0%)
	United States	24 (64.9%)	5 (13.5%)	5 (13.5%)	3 (8.1%)
Male Models	China	16 (64.0%)	9 (36.0%)	0 (0.0%)	0 (0.0%)
	Malaysia	21 (67.7%)	8 (25.8%)	1 (3.2%)	1 (3.2%)
	United States	19 (79.2%)	0 (0.0%)	5 (20.8%)	0 (0.0%)

In Table 3 (below), one can see that Caucasian manikins were overwhelmingly utilized in all three countries. In fact, a slightly greater proportion of Caucasian-appearing female manikins were displayed in China (97.0%) than in the U.S. (95.5%), although the differences were not significant ($\chi 2_F$ = 7.25, df = 4, p = .123). For male manikins, higher proportions of Caucasian models were used in China and

Malaysia than in the U.S. although again the differences were not statistically significant ($\chi2_M$ = .284, df = 4, p = .467).

Discussion

The present study was undertaken to better understand how people of different races and cultures assess physical attractiveness. Our method for assessing physical attractiveness was indirect and based on the *assumption* that fashion models are considered highly attractive, an assumption also made by Frith et al. (2004). The assumption may certainly be questioned, but seems reasonable in light of the very definition of a *fashion model* and by noting the competitive processes by which they are selected (Solomon, Ashmore, & Longo, 1992).

Table 3   Manikins displaying clothing fashions according to sex, race/ethnicity, and country.

Sex	Country	Race/Ethnicity of Models			
		Caucasian (White)	Asian (Oriental)	Black	Mixed/Ambiguous
Female Models	China	102 (97.0%)	1 (1.0%)	0 (0.0%)	2 (2.0%)
	Malaysia	110 (91.6%)	8 (6.7%)	0 (0.0%)	2 (1.7%)
	United States	105 (95.5%)	0 (0.0%)	1 (1.0%)	4 (3.5%)
Male Models	China	33 (94.3%)	0 (0.0%)	0 (0.0%)	2 (5.7%)
	Malaysia	42 (97.7%)	1 (2.3%)	0 (0.0%)	0 (0.0%)
	United States	27 (84.4%)	0 (0.0%)	2 (6.3%)	3 (9.4%)

Our inquiry was driven in large part by an interest in two conflicting perspectives: One was the ethnocentric perspective which predicts that different ethnic groups will consider members of their own group most attractive (Banner, 1983; Barker & Barker, 2002; Englis, Solomon, & Ashmore, 1994). The other perspective views judgments of physical beauty as neurologically engrained even before birth (Cunningham, 1986; Jacobsen, Schubotz, Hofel, & von

Cramon, 2006) and therefore culturally universal to a substantial degree (Ishi, Gyoba, Kamachi, Mukaida, & Akamatsu, 2004; Jefferson, 2004).

The present study and that of Frith et al. (2004) call into question the ideal that people make physical attractiveness assessments primarily on an ethnocentric basis. Results also suggest that races may differ in average physical attractiveness, regardless of who is making the judgment. These findings are in line with evidence that judgments of beauty have strong neurological underpinnings (Chatterjee et al., 2009; Jacobsen et al. 2006). Additional support comes from the research on newborns (reviewed in the introduction) suggesting that they have preferences for human faces resembling those of adults (Geldart et al., 1999; Kramer et al., 1995).

Findings from the present study build on reports by Frith et al. (2004) and Frith, Shaw, & Cheng (2005), both of which were based on advertising in prominent women's magazines in the United States, Singapore, and Taiwan. In both of these latter studies, the vast majority of ads for clothing in all three countries featured Caucasian models, while ads for beauty products in Singapore and Taiwan were more or less evenly divided between Asian and Caucasian models. Similarly, Jung and Lee (2009) reported that most models used in both United States and South Korean women's magazine ads were Caucasian.

In another study, however, Feng and Frith (2008) compared the ads appearing in a women's magazine with a limited regional circulation in China to two international women's magazine also available in China. Roughly 80% of the models featured in the regional magazine were Asian compared to only about 33% and 50% of models in the two broader circulating Asian fashion magazines. This latter study demonstrates that Asian models are certainly available in China but that advertisers seeking to reach the widest Asian markets continue to rely most heavily on Caucasian models. Perhaps because magazines with limited circulation operate on tighter budgets, they utilize local models more than broader circulating Asian magazines.

Additional support for the idea that people share very similar standards of physical attractiveness regardless of race comes from a recent *Washington Post* (December 26, 2009, p. C01) article entitled "Foreign models flock to China, which embraces a Western vision of beauty". The writer (K. B. Richburg) asserted that "A walk through [a] department store in central Beijing is instructive.… Even the mannequins have Western features." The director of a Chinese modeling agency was quoted in the article as saying "The foreign models' faces are much more three-dimensional…. They look nicer in pictures."

The present hypothesis that racial differences may exist in physical attractiveness was only partially supported by a study based on computer averaging of photographed faces from difference racial groups (Rhodes, Lee, Palermo, Weiss, Yoshikawa, Clissa et al., 2005). It indicated that both Caucasian and Asian judges consider faces that blended both Caucasian and Asian features to be more attractive than either of the single-race computer averaged faces.

A partial challenge to our hypothesis also comes from a study by Jankowiak, Gray, and Hattman (2008). These researchers asked men and women from China to rate the physical attractiveness of both Caucasian and Asian magazine models. Consistent with our hypothesis, females of both races rated Caucasian models of both sexes as more attractive than the Asian models. Males, however, rated male Caucasian models as more attractive than male Asian models, but did not differ in the average attractiveness ratings given to Caucasion and Asian female models.

The research that provides the greatest challenge to our interpretation of the present study came from a study of students attending a university in Germany, as mentioned in the introduction (Honekopp, 2006). Nearly equal numbers of blacks, whites, and Asians were asked to rate photographs of members of all three racial groups. Among Honekopp's (2006, p. 204) conclusions was that "the evaluations of same-race judges . . . proved to be significantly more favorable than the evaluations of other-race judges". If this finding can be replicated and the photographs that were rated in the

study were representative of each racial group, they certainly challenge the interpretation we have given to our own findings. Obviously, more research is needed to resolve this apparent inconsistency.

The Evolutionary Context of Sex Differences in Advertising

The majority of prior studies of fashion models and manikins have been based on magazine advertising for females. We sought to overcome the exclusion of male models by sampling publically displayed advertising. Doing so revealed that much higher proportions of females were used in public ads, especially regarding clothing fashions.

Evolutionary factors may account for why females are used more than males in most forms of advertisements, particularly for clothing. In this regard, females have been consistently shown to be considered more physically attractive on average than males (Andreoni & Petrie, 2008, p. 78; Diener, Wolsic, & Fuijita, 1995; Sarason, Sarason, & Shearin, 1986). Female's greater attractiveness can be explained in evolutionary terms as resulting from males using physical attractiveness more than females do as an important basis for choosing mates (Buss, 1989; Buss, Shackelford, Kirkpatrick, & Larsen, 2001; Feingold, 1990). This sex difference, in turn, can be accounted for by noting that females tend to "bias" their mate choices more in terms of evidence of long term provisioning capabilities rather than the physical attractiveness of prospective mates, which has also been explained evolutionarily (Ellis, 2011).

Females have been shown to express greater interest in making clothing purchases than is true for males (Buunk & Bugel, 1996). And, they tend to shop more than do men (review by Ellis, Hersberger, Field, Wersinger, Pellis, Geary, et al., 2008, p. 728). From an evolutionary perspective, both of these tendencies likely reflect greater female desire to enhance their physical appearance, thereby making themselves more attractive to their mates or prospective mates (Ellis, 2011). In light of these evolved sex differences, advertisers and merchants have come to use higher proportions of female models and manikins to enhance

retail sales, especially for clothing and cosmetics.

Study Limitations

The main limitation of our study involved its samples having been obtained while strolling through modern-day shopping malls in three countries. Such a method is similar to an entomologist collecting insect specimens while walking through various ecological habitats. While this methodology is far from ideal, it is likely to be at least as representative as sampling photographs in several issues of a few preselected fashion magazines (e.g., Frith, et al., 2004, 2005; Jung & Lee, 2009; Solomon et al., 1992). Thus, while we are confident that our method of sampling provided a close approximation of the extent to which metropolitan areas in the cities we surveyed utilize models of different races in public advertising, replications by other researchers using similar or different sampling procedures are certainly in order.

Alternative Interpretations of the Findings

If the predominant use of Caucasian models and manikins in advertising in Asia is *not* the result of their being considered more attractive than "local" models and manikins, how else could one explain our observations? One reader proposed that the disproportionate use of Caucasian models in Asian countries could simply reflect a belief that Caucasians are higher than Asians in social status and a desire to use clothing and other purchases as status symbols. This proposal is difficult to compromise with evidence that, at least in the United States, the incomes of Caucasians and Asians are very similar, and, in terms of education and occupational levels, Asians actually surpass Caucasians by substantial margins (Barringer, Takeuchi, & Xenos, 1990). Also, surveys of women – who make most clothing purchases (Buunk & Bugel, 1996) – indicate that the main criteria they use in making fashion-related purchases is wanting to appear attractive, not wanting to appear wealthy (Baumeister & Vohs, 2004; Reichert, 2003). Nevertheless, it is still possible to argue that in China and Malaysia, Caucasians are *perceived* as being of higher status, and therefore more deserving of

being emulated in terms of clothing fashions.

Another critic of this study proposed that Caucasian models could have been utilized the most in all three countries for clothing ads because most of the clothing fashions were in fact Western clothes rather than Asian clothes. In other words, Western-styled clothing would seem more "natural" when they are worn by Caucasians. The main problem with this argument is that advertisers seeking to boost sales of clothing in Asia should seek to *minimize* any implication that the clothing they want Asian customers to purchase are inappropriate for them to wear. It also seems relevant to note that most modern clothing styles have become increasingly international rather than simply "Western", especially given that they are being manufactured predominantly in Asia.

A third suggestion for an alternative interpretation of this study's findings involved noting that many studies throughout the world have found light skin and hair color to be perceived as more attractive than dark skin and hair color, particularly for women (e.g., Bond & Cash, 1992; Hall, 1995; Sahay & Piran, 1997; Swami, Rozmus-Wrzesinska,Voracek, Haubner, Danel, Pawlowski, et al., 2008; Wagatsuma, 1967; but see Fink, Grammer, & Thornhill, 2001 for contrary evidence). If so, the lighter skin and hair color of most Caucasians relative to Asians might explain the higher use of Caucasians in fashion ads even in Asia. This line of reasoning, however, does not negate our hypothesis that human cultures all utilize a fairly common evolved standard of physical beauty. Instead, it simply specifies skin color and hair color as being among the criteria comprising the common standard.

Overall, while this study must be looked upon as preliminary and in need of replication and extension, it indicates that the race of models and manikins being utilized to publically promote clothing purchases in the United States and in two Asian countries are virtually identical. This finding parallels findings based on the race of models used in magazine ads (e.g., Frith et al., 2004, 2005; Jung & Lee, 2009). The most reasonable explanation seems

to be that there are certain universal standards of beauty (Atiyeh & Hayek, 2008; Jefferson, 2004). While ethnocentrism may have some role to play in beauty assessment, its influence seems to be overwhelmed by evolved neurological mechanisms.

Editor's Note

It has been suggested by one reviewer that there may be a universal tendency for human beings to favor physical characteristics, especially of facial features, that are most removed from those of animals and our more "primitive" ancestors, as exemplified by our living primate relatives, whether or not they are conscious of any innate bias in this direction. This would help to explain any preference for lighter skin color and reduced prognathism, and even the nineteenth century instances of Chinese pejorative references to European as having "dog's eyes" (Caucasians lack the epicanthic fold) would support this theory, although the latter could also be attributed to ethnocentrism.

However, class status may also enter into the equation. The more recent use in Japan of cosmetic surgery to remove the epicanthic fold could be attributed to a present day tendency to associate Caucasoid facial features with modernity, and a resultant sense of the "superior" class status of Caucasoid features in a nation that adopted Western culture and technology only with the Meiji reformation. Similarly, the long-established preference amongst Indian Hindus for light skin predates colonial rule and reflects the fact that upper caste Hindus have long been regarded as having lighter skin coloring than those of lower status (c.f. also the belief in an ancient invasion of that continent by lighter-skinned Caucasoid Indo-Aryans). A preference for lighter coloring is also found in the Icelandic sagas, where slaves are portrayed as being darker in skin, hair, and eye color than freemen. Similarly, laboring classes who toiled outdoors would always tend to acquire darker skins than those of higher status who tended to be less heavily exposed to the sun.

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