

Female Body Dissatisfaction and Perceptions of the Attractive Female Body in Ghana, the Ukraine, and the United States

David A. Frederick

Department of Psychology, University of California, Los Angeles
UCLA Center for Society and Genetics
FPR-UCLA Center for Culture, Brain, and Development
UCLA Center for Behavior, Evolution, and Culture

Gordon B. Forbes

Department of Behavioral Sciences, Millikin University

Anna Berezovskaya

Department of Psychology, University of California, Los Angeles

Abstract

In many non-Western societies, moderate to high levels of body fat in women have long been equated with health, physical attractiveness, social status, and fertility. In recent times, however, many Western cultures have emphasized the idea that slender women are most attractive. This emphasis on thinness has led to increased levels of body dissatisfaction and dieting in Western cultures and in cultures that have imported Western media and ideals. The current study examines the body ideals in two cultures that have recently undergone increased contact with Western nations: Ghana and the Ukraine. Body dissatisfaction and perceptions of the attractive female body were studied in U.S. and Ukrainian undergraduates and villagers in Ghana using the Contour Drawing Rating Scale (Thompson & Gray, 1995). Compared to the other cultures, in the U.S., slender bodies were more highly valued and women reported a larger discrepancy between their current and

✉ David A. Frederick, 1285 Franz Hall, Department of Psychology, 3rd Floor Mailroom, University of California, Los Angeles, CA 90095-1563. Telephone: 310-665-0784. E-mail: *enderflies1@aol.com*

The authors are grateful to the UCLA Graduate Division, the FPR-UCLA Center for Culture, Brain, and Development, and the UCLA Center for Society and Genetics for providing financial support to the first author. For additional papers on body image and body type preferences, please refer to the website of the first author (<http://dfred.bol.ucla.edu>).

ideal bodies. Men and women in Ghana showed the least preference for slender bodies. Men in the U.S. reported that the most attractive body was thinner than the average female body, whereas men from Ghana reported that the most attractive body was heavier than the average female body. In general, preferences recorded in the Ukrainian sample fell between the results for the U.S. and Ghanaian samples. These findings suggest that despite the increased contact with Western cultures, there may be aspects of Ghanaian and Ukrainian culture that promote greater body satisfaction.

Keywords: body image, attractiveness, cross-cultural research, Ukraine, Ghana

INTRODUCTION

In many non-Western societies, moderate to high levels of body fat in women have long been equated with health, physical attractiveness, social status, and fertility (e.g., Cassidy, 1991). According to Brown and Konner (1987), 81% of societies in the Human Relations Area Files¹ preferred plump or moderately fat women, and 90% preferred women with large or fat hips and legs. In some cultures, individuals with higher body fat are seen as more prestigious because greater body fat indicates access to food and other resources (Brewis & McGarvey, 2000; Craig, Swinburn, Matenga-Smith, Matangi, & Vaughan, 1996; McGarvey, 1991; Wilkinson, Ben-Tovim, & Walker, 1994). These positive evaluations of body fat arguably reach their zenith in the “fattening huts” in some African cultures, where girls are force-fed large quantities of food to make them gain weight and become more appealing brides (Brink, 1989). In Fiji, large and robust bodies were traditionally considered aesthetically pleasing and people were encouraged to eat heartily through ideals such as “kana, mo urouro” or “eat, so you will become fat” (Becker, 2004). In a cross-cultural study, Swami and Tovee (2004) found that rural Malaysians showed a stronger preference for heavy bodies than did urban-dwelling Malaysians and British individuals. Across many societies, big is beautiful.

This ideal that “big is beautiful” is a dramatic departure from the current ideals in many Western cultures. In Western cultures, thin is currently in and the models represented in the media have become increasingly slender over time (Spitzer, Henderson, & Zivian, 1999). The intense pressure that women feel to be slender has produced a culture where body dissatisfaction and dieting to lose weight are prevalent (Cash & Henry, 1995; Frederick, Forbes, Grigorian, & Jarcho, 2007). For example, a recent survey of 52,677 visitors to a popular U.S. news website (Frederick, Peplau, & Lever, 2006) found that many women were dissatisfied with their weight (63%), felt physically unattractive (21%), and were so uncomfortable

¹ The Human Relations Area Files (HRAF) is a large database of ethnographic studies. Information on the electronic version of the HRAF can be obtained at <http://www.yale.edu/hraf/collections.htm>

with their bodies that they avoided wearing a bathing suit in public (31%). This widespread dissatisfaction is problematic because women who have negative attitudes about their appearance report a wide array of psychological and health issues, report less overall satisfaction with life, and are at risk for developing potentially life-threatening eating disorders (e.g., Peplau, Frederick, Yee, Maisel, Lever, & Ghavami, in press; Polivy & Herman, 2002; Stice, 2002). The negative consequences of body dissatisfaction make it important to identify regions where body dissatisfaction may be prevalent.

The goal of the current study is to examine the body ideals in two cultures that have recently undergone increased contact with Western nations: Ghana and the Ukraine. Although interest in cross-cultural studies of body dissatisfaction has increased in recent years (e.g., Jung & Forbes, 2007; Jung & Lee, 2006; King, 2006; Nasser, Katzman, & Gordon, 2001), the available information is still limited. There are several reasons why it is important to examine the relative levels of body satisfaction in non-Western societies. First, modernizing societies are exposed to two factors known to be associated with body dissatisfaction. These factors are rapid social change, particularly changing roles for women (e.g., Silverstein & Perlick, 1995; Wolf, 1991) and Western media, with its ubiquitous portrayals of very slender female bodies (e.g., Becker, 2004; Levine & Smolak, 1998; Thompson & Heinberg, 1999). Second, as societies modernize they may lose some of the social norms that have traditionally protected women from experiencing body dissatisfaction. Third, as the important work of Anderson-Fye (2004) has shown, cross-cultural research may make it possible to identify societies or features of societies that allow them to modernize without women experiencing high levels of body dissatisfaction.

Information on body dissatisfaction from two geopolitical regions is of particular theoretical interest, yet data from these regions is very sparse. These are the developing countries of sub-Saharan Africa and the formerly socialistic countries of Eastern Europe.

Importance of Sub-Saharan Africa

The Republic of Ghana, a country in West Africa, has a long history of contact with the West. As a former protectorate of Britain, there has been intensive cultural exchange between Ghana and the West, and most individuals learn English through formal schooling. Has this extensive contact with the West led individuals in Ghana to adopt body preferences for slender bodies? Unfortunately, no formal studies of body ideals in Ghana are available. The traditional Ghanaian belief has been that “the thicker and heavier, the richer and more attractive a woman is” (Beauty Definitions Can Hardly be Conclusive, 2006). These traditional body and beauty ideals have been challenged, initially by colonialism and more recently by increasing exposure to, and acceptance of, Western fashion and beauty ideals. The

influence of traditional Ghanaian preferences for large bodies is likely still present, but these influences may be diminishing in the face of continuing globalization. One goal of this study was to test whether individuals in Ghana now prefer levels of thinness that are comparable to the levels of thinness preferred by individuals in the U.S. or whether there remains a preference for heavier bodies.

Body Dissatisfaction in Eastern Europe

The rapid decline of socialism and the adoption of market economies produced enormous social and political changes in Eastern Europe (Berglund, Ekman, & Aarebrot (2004). At least in theory, the socialist system, with its emphasis on egalitarianism, rejection of traditional views of femininity, and decreased objectification of female bodies, protected women from excessive concerns with physical appearance, the pernicious influence of the thin body ideal, and disordered eating (Catina, Boyadjieva, & Berger, 1996; Catina & Joja, 2001; Silverstein & Perlick, 1995). Whether or not this was actually the case is a matter of considerable dispute (e.g., Eisenstein, 1993; Eisler, 2001), but even if some level of protection was present these protections were lost with the collapse of the socialist system. This loss, the dramatic social and economic changes associated with the introduction of Western values and a market economy, the rapidly changing roles for women, and the availability of Western media all appear to have contributed to a marked increase in body dissatisfaction in Eastern Europe (for a discussion of these changes and their consequences see Catina & Joja, 2001; Rathner, 2001). Studies from countries in Eastern Europe find that body dissatisfaction among women is common and in some cases is comparable to levels in North America and Western Europe (Forbes, Doroszewicz, Card, & Adams-Curtis, 2004; Pokrajac-Bulian, & Ambrosi-Randić, 2007; Rukavina & Pokrajac-Bulian, 2006; Włodarczyk-Bisaga & Dolan, 1996; Włodarczyk-Bisaga, Dolan, McCluskey, & Lacye, 1995). Although there is some evidence of increased body dissatisfaction in the Ukraine (Biluka & Utermohlen, 2002), additional research is clearly needed. A further goal of this study was to examine whether individuals in the Ukraine and the U.S. prefer the same degree of thinness when evaluating female bodies.

The Present Study

We studied women's body dissatisfaction and examined the extent to which slender versus heavy woman are viewed as attractive in three countries: Ghana, the U.S., and the Ukraine.

Hypotheses

Based on the high levels of body and weight dissatisfaction in the U.S., the influence of rapid social change and the introduction of Western media to the Ukraine, and traditional Ghanaian preferences for larger women's bodies, we made the following hypotheses:

Hypothesis 1: Stronger preferences for thin bodies in the U.S. and for heavier bodies in Ghana by women. Women from the United States will desire an ideal body that is thinner than the body desired by women from Ghana and the Ukraine. Women from Ghana will desire a body that is larger than the body desired by women from the U.S. and the Ukraine.

Hypothesis 2: Highest levels of perceptual body dissatisfaction in the U.S. and lowest levels in Ghana. The greatest level of body dissatisfaction would be found in the U.S., the lowest level of body dissatisfaction would be found in Ghana, and an intermediate level would be found in the Ukraine. Specially, in this study we assess "perceptual body dissatisfaction", or the size of the discrepancy between a person's perception of their actual body and their ideal body.

Hypothesis 3: Strongest preferences for thinness among U.S. men and weakest preferences among Ghanaian men. Men in the United States will have stronger preferences for slender women than will men from the other cultures. Men from Ghana will have stronger preferences for heavier women than will men from the other cultures. Women's perceptions of what men find attractive will follow a similar pattern, with U.S. women believing that men prefer slender women and Ghanaian women believing that men prefer heavier women.

METHOD

Participants

The U.S. sample consisted of 68 women (age $M = 20.71$, $SD = 1.25$) and 79 men (age $M = 23.70$, $SD = 5.83$) from communications and psychology classes at a large public university on the West Coast of the United States. The Ukrainian sample consisted of 71 college women (age $M = 24.07$, $SD = 9.05$) and 72 college men (age $M = 21.60$, $SD = 4.53$) from a university in a large city. The Ghanaian sample consisted of 26 adult women (age $M = 30.62$, $SD = 12.23$) and 22 adult men (age, $M = 24.50$, $SD = 8.00$) from a village of approximately 1000 people located near the industrial city of Ho.

A 2 (gender) x 3 (country) ANOVA for age found a significant effect for gender, $F_{(1, 330)} = 24.70$, $p < .001$, for country, $F_{(3, 330)} = 12.37$, $p < .001$, and a

significant interaction, $F_{(1, 330)} = 20.92$, $p < .001$. Post hoc LSD comparisons revealed significant age differences among the U.S., Ghanaian, and Ukrainian women. However, none of the comparisons for men were significant. Because the women's samples differed in age, analyses were also computed using ANCOVAs with age as the covariate. Because the pattern of results did not differ from the results using ANOVAs, only the results for ANOVAs are reported.

We will report only the results for men that are directly relevant to our hypothesis. Additional measures for men have been reported in a related study by Frederick et al. (2007) and theoretical perspectives relating to male body dissatisfaction and preferences for male body types are discussed elsewhere (e.g., Frederick, Fessler, & Haselton, 2005; Frederick & Haselton, 2007).

Procedure

The U.S. and Ukrainian participants were volunteers who completed the study materials after class. A formal back translation was used to ensure the accuracy of the Russian translation used in the Ukrainian sample. The Ghanaian participants were volunteers recruited by the third author during her time in the village. Because the official language of Ghana is English, most participants were comfortable completing the materials in English. However, a version in Ewe was also available and was chosen by approximately one-fourth of the participants. This version was prepared by a professor with expertise in Ewe, and the accuracy of the Ewe translations was verified through consultation with several bilingual native speakers of Ewe.

Measures

Contour Drawing Rating Scale (Modified Version). The Contour Drawing Rating Scale (CDRS; Thompson & Gray, 1995) consists of 9 line drawings of women's bodies arranged and numbered from 1 (smallest) to 9 (largest). Thompson and Gray (1995) reported a one-week test-retest reliability of $r = .78$. In a large sample of adolescent girls, Wertheim, Paxton & Tilgner (2004) reported 14-week test-retest reliabilities ranging from .71 to .90 and provided evidence of satisfactory construct and discriminant validity. Following the procedure of Wertheim et al. (2004), fractional values (1.5, 2.5, etc.) were inserted between the figures to encourage the participants to select intermediate values.

We modified the forms in two ways. First, an informal assessment by anthropologists with field research experience suggested that participants might confuse the ribs on drawings 1-3 with breasts. As a consequence we removed the ribs from drawings 1-3. Second, because the images on the CDRS possess hair and facial features that are typical of Caucasian individuals, we obscured the faces and hair with a row of 9 opaque boxes.

Women were asked to indicate the figure that most closely represented *Your current body*, *The body you would most like to have*, *The body of the typical woman your age*, and *The body men your age find the most physically attractive*. Body dissatisfaction was operationalized as the discrepancy between the number of the figure representing the participant's current body and each of the two ideal bodies (i.e., the body she would like to have and the body men find most attractive).

Men were asked to indicate the figure that most closely represented *The body men your age find the most physically attractive* and *The typical body for a woman your age*. Participants were also asked rate the CDRS bodies 2, 4, 6, and 8, using the question *How attractive is body (2/4/6/8) to men your age* on a 9 point scale (1 = not at all; 5 = somewhat; 9 = extremely).

RESULTS

Results were analyzed by one-way analysis of variance (ANOVA) followed by post hoc LSD tests with alpha = .05. Cohen's *d* statistic was reported as a measure of the effect size for differences between pairs of means (Cohen, 1988).

Women's Ratings of Their Actual and Ideal Bodies

Women's ratings of their actual bodies and the ideal bodies they would like to possess are shown in Table 1. We first tested whether women in the different countries have different ideal body types. The ANOVA comparing the countries was significant (see Table 1). Consistent with Hypothesis 1, post hoc LSD tests indicated that the ideal figure chosen by the U.S. sample was significantly smaller than the ideal figure chosen by the Ukrainian sample. The ideal woman in the Ghanaian sample was heavier than the ideal woman in both the U.S. and Ukrainian sample. The ANOVA for the figure chosen to represent the participant's actual body was not significant, indicating that perceptions of actual body size did not vary across the samples.

Table 1. Women's reports of the actual body size and ideal body size

Women's Body Ratings	US		Ukraine		Ghana		$F_{(2, 159)}$	d		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		US vs. Ukraine	US vs. Ghana	Ukraine vs. Ghana
Actual	4.5	1.2	4.6	1.7	5.1	2.2	1.21	-0.01	-0.30	-0.27
Ideal	3.4	0.8	4.0	1.1	4.6	1.4	12.05**	-0.59**	-1.01**	-0.43*

* $p < .05$ ** $p < .01$
d - Cohen's *d* statistic

Women's Body Discrepancy (Dissatisfaction) Scores

Women's body discrepancy scores are shown in Table 2. We tested whether there was a discrepancy between women's ratings of their actual body, their ideal body, and the body they believe men prefer. The ANOVA for the difference between women's actual and ideal body (absolute value of actual minus ideal) was significant. Consistent with Hypothesis 2, post hoc tests indicated that women from the U.S. sample had the largest discrepancy between their actual and ideal bodies. Although the order of the means was in the predicted direction, with Ukrainian women reporting a larger discrepancy than the Ghanaian women, the difference between the Ukrainian women and the Ghanaian women was not significant.

Table 2. The discrepancy between women's reports of their actual body size, their ideal body size, and the body size they believe men prefer¹

Women's Body Ratings	US		Ukraine		Ghana		<i>F</i> _(2, 159)	d		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		US vs. Ukraine	US vs. Ghana	Ukraine vs. Ghana
Actual-Ideal	1.1	1.2	0.5	1.3	0.5	1.7	3.69*	0.46*	0.39*	0.01
Actual-Men Prefer	1.3	1.4	0.5	1.9	0.3	2.3	5.20*	0.51**	0.53**	0.10

p* < .05 *p* < .01

d - Cohen's *d* statistic

¹ Absolute values of 'actual - ideal' and 'actual - men prefer'

Similarly, the ANOVA for the difference between women's actual body and the body size they perceived as preferred by men (absolute value of actual minus men prefer) was significant. Post hoc tests indicated that, as predicted by Hypothesis 2, the U.S. sample had larger discrepancies than the Ukraine and Ghanaian samples. Although the order of the means was in the predicted direction, with Ukrainian women having greater discrepancies than the Ghanaian women, this difference between Ukrainian women and the Ghanaian women was not significant.

Perception of Most Attractive Woman's Body

Women and men's perceptions of the women's body men find most attractive are shown in Table 3. The ANOVA for women was significant. Post hoc tests indicated that, as predicted by Hypothesis 2, the body U.S. women selected as preferred by men was smaller than the body selected by Ukrainian women, and the body selected by Ukrainian women was smaller than the body selected by the Ghanaian women. The order of the means for men was the same as for women, but the differences between countries were not significant.

Table 3. Men’s reports of the body they find most attractive and women’s perceptions of men’s preferences

Body Men Find Most Attractive	US		Ukraine		Ghana		$F_{(2, 167)}$	d		
	M	SD	M	SD	M	SD		US vs. Ukraine	US vs. Ghana	Ukraine vs. Ghana
Women	3.2	0.8	4.0	1.4	4.7	1.7	17.00**	-0.74**	-1.17**	-0.47**
Men	3.9	0.9	4.1	1.1	4.4	1.4	1.66	-0.16	-0.38	-0.22

** $p < .01$
d - Cohen’s *d* statistic

Attractiveness Ratings of Women with Different Body Sizes

To further explore societal differences in body size preferences, we examined the ratings of the attractiveness of body 2 (Very Slender), body 4 (Slender), body 6 (Heavy), and body 8 (Very Heavy). Separate repeated measure ANOVAs were computed for each body (2, 4, 6, 8) for both men and women with country as the independent variable. As shown in Table 4, all main effects were significant for women. None of the main effects were significant for men except for rating of body 8. Consistent with Hypothesis 3, post hoc tests indicated that U.S. women rated the very slender woman (Body 2) as more attractive than did women from the Ukraine and Ghana. In addition, women from the U.S. rated the slender woman (Body 4) as more attractive than did women from the Ukraine. In contrast, women from Ghana rated the heavy (Body 6) and very heavy (body 8) women more favorably than did women from the Ukraine and U.S. Women from the Ukraine also rated these heavier bodies more favorably than did women from the U.S.

Table 4. Women’s and Men’s Ratings of the Attractiveness of Women Varying in Body Size

	US		Ukraine		Ghana		$F_{(2, 314)}$	d		
	M	SD	M	SD	M	SD		US vs. Ukraine	US vs. Ghana	Ukraine vs. Ghana
Men’s ratings ¹										
Very slender (Body 2)	3.6	2.5	3.5	2.0	3.3	2.5	0.20	0.07	0.12	0.07
Slender (Body 4)	6.6	1.5	6.3	2.0	5.7	2.5	2.27	0.19	0.45	0.27
Heavy (Body 6)	3.6	2.1	3.9	2.0	4.6	2.0	0.12	-0.11	-0.50	0.40
Very Heavy (Body 8)	1.5	1.2	2.0	1.8	2.5	2.3	3.49*	-0.29	-0.53*	-0.25
Women’s rating of men’s ratings ²										
Very slender (Body 2)	5.6	2.3	3.9	1.8	4.4	2.4	11.96**	0.83**	0.54**	-0.12
Slender (Body 4)	6.9	1.3	6.1	1.9	6.7	2.0	3.47*	0.45*	0.07	-0.30
Heavy (Body 6)	3.4	1.6	4.1	2.1	4.7	2.3	5.12*	-0.36*	-0.67**	-0.31*
Very Heavy (Body 8)	1.5	0.8	2.4	2.3	3.7	3.0	12.23**	-0.54**	-0.99**	-0.47**

* $p < .05$ ** $p < .01$
d - Cohen’s *d* statistic

¹ Men’s attractiveness ratings of each body; ² Women’s rating of how attractive men find each body

The pattern of results for men generally parallel the results for women, but only the ANOVA for Body 8 was significant. This analysis indicated that men from Ghana rated the very heavy body more positively than did men from the U.S. ($d = .53$). There was a trend towards Ghanaian men rating the heavy body more favorably than did men from the U.S. ($d = .50$) and U.S. men were more attracted to the slender woman than were men from Ghana ($d = .45$), but these effects did not quite reach the $p < .05$ level of significance.

DISCUSSION

We studied body dissatisfaction and perceptions of the most attractive women's body in a college sample from the U.S., where female appearance standards idealize an extremely slender body; in a sample of adult villagers in Ghana, a sub-Saharan African society that had traditionally associated heavier female bodies with physical attractiveness, social status, and fertility; and in a college sample from the Ukraine, a rapidly changing society that recently emerged from Soviet-style socialism. We tested a series of hypotheses about how societal differences would influence women's body dissatisfaction. All of these hypotheses received strong support.

Consistent with our hypotheses, U.S. women were the most likely, whereas Ghanaian women were the least likely, to desire a thin body and to believe that thin bodies were valued by men. Although U.S. men preferred bodies that were substantially smaller ($d = 1.41$) than their perception of the average woman's body, Ghanaian men actually preferred women who were somewhat heavier than average. Interestingly, however, men and women in all samples agreed that body number 4 (slender) was the most attractive body. These findings suggest that although the samples differed in their evaluations of very thin and heavy women, there was convergence in preferring women with more moderate levels of body fat.

Compared to U.S. women, Ghanaian women desired a heavier ideal body, and this difference was very large ($d = 1.01$). This finding is consistent with the traditional Ghanaian association of thin bodies with poverty, ill health, and reduced reproductive capacity and contemporary Western associations of thin bodies with attractiveness and prestige. The differences found between the U.S. and Ukraine were consistent with the hypothesized effects of rapid Westernization and social change in the Ukraine. Although it is not possible to determine the relative contributions of social change and exposure to Western media in our Ukrainian sample, past research suggests that media influences alone are not sufficient to explain the increase in body dissatisfaction in non-Western populations (Forbes et al., 2004; Jung & Forbes, 2006; Nasser, 1997). The relative similarity in body satisfaction among the U.S. and Ukraine women suggest that if the pre-1989 socialist system in Ukraine did provide protection against exposure to or internalization of the thin ideal, these protections have been largely lost.

Limitations and Strengths

Our study was limited by the use of non-representative samples and our Ghanaian sample was fairly small. Although we did not measure their educational attainment and socioeconomic level, it seems likely that both were appreciably lower than the college students in our U.S. and Ukrainian samples. Consequently, it is possible that the preferences for larger body types found in the Ghanaian sample may be due to these or related factors rather than to broad cultural differences. However, the fact that the results for the Ghanaian sample were congruent with traditional Ghanaian values for larger bodies suggest that broad cultural differences are contributing to the differences in body dissatisfaction and body preferences in our samples. Further, the study provides one of the first opportunities to formally report body ideals in Ghana.

The age differences between our samples initially appeared to be a limitation, but there are two reasons to believe that age differences had little effect on our results. First, when our ANOVAs were replaced with ANCOVAs using age as covariate, there was no change in our results. Second, studies in Western societies typically report only weak associations between age and body dissatisfaction (Frederick, Peplau, & Lever, 2006; Tiggemann, 2004). However, it should be noted that there is very limited information on cross-cultural differences in the influence of age on body image, and additional research, particularly in non-White and non-Western populations is needed (e.g., Williamson et al., 2005).

It would have been helpful if we had measured the body mass index (BMI) of our participants, but direct measurement of their height and weight was impractical. However, in Western samples the figure chosen to represent one's actual body serves as a good proxy for BMI and this value did not differ among the samples (Bulik, Wade, Heath, Martin, Stunkard, & Eaves (2001). This suggests that the groups probably did not differ in BMI. Future research would benefit from direct measurement of height, weight, and other relevant physical features. Our study was also limited by the use of only one measure of body dissatisfaction. Although our visually based figural measure would appear to be much better suited for cross-cultural studies than semantically based measures that would appear to be more subject to the inevitable imprecision of translation (Brislin, 1986), like all cross-cultures studies of complex constructs, studies of body dissatisfaction would benefit from the use of multiple dependent measures (Forbes, in press; van de Vijver & Leung, 1997).

A final limitation is that it is impossible from our data to identify the root causes of the body preferences in our samples. Although this study of body preferences was motivated by the changing cultural pressures in these three geopolitical regions, evolutionary perspectives can also shed light on this phenomenon. Evolutionary psychologists focus on the ways that experiences during development, changes in social settings, and changes in mating contexts can

evoke different evolved psychological mechanisms that are adaptive in the given setting (e.g., Barrett, Frederick, Haselton, & Kurzban, 2006; Frederick & Haselton, 2007; Gangestad, Haselton, & Buss, 2006; Haselton, Mortezaie, Pillsworth, Bleske-Rechek, & Frederick, 2007; Platek, Critton, Burch, Frederick, Myers, & Gallup, 2003; Salska, Frederick, Pawlowski, Reilly, Laird, & Rudd, 2008). Some evolutionary psychologists have proposed that body fat is a strong cue of robustness and access to resources when food is scarce, which may lead individuals to experience greater attraction to heavier individuals during these times. In support of this hypothesis, individuals prefer heavier women in cultures where food stores are low (Anderson, Crawford, Nadeau, & Lindberg, 1992) and men even prefer heavier women when they are hungrier (Nelson & Morrison, 2005; Swami & Tovee, 2006). Other evolutionary social scientists have proposed that humans evolved a predisposition to imitate individuals who are prestigious in their culture (e.g., Richerson & Boyd, 2005; Frederick, Fessler, & Haselton, 2005). It is possible that some of the cross-cultural differences revealed in this study are products of evolved mechanisms that shift mating preferences according to what body types are prestigious in the local environment as well as the local availability of food resources.

A major strength of this research was that, unlike most research on body image, we were able to investigate the relative levels of dissatisfaction across three important geopolitical regions. In fact, our study appears to be the first investigation of body image in Ghana, and one of the few cross-cultural studies of body image including samples from Eastern Europe. Furthermore, instead of simply asking participants to indicate which body they found most attractive, our method of asking individuals to rate multiple images allowed us to determine societal differences in preferences for very thin and very heavy women.

CONCLUSIONS

Our findings confirmed the hypothesis that the greatest body dissatisfaction would be experienced by U.S. women and the least dissatisfaction would be experienced by Ghanaian women. There was a surprising degree of uniformity across the samples, however, in terms of men valuing women in the middle of the body range presented rather than very slender or very heavy women. In addition, women recognized that men preferred these body types.

Although the design of the study does not allow us to determine the origin of the differences between cultures, the results for the Ghanaian sample were consistent with traditional Ghanaian associations between larger bodies and greater health, wealth, and fecundity, whereas the results for the Ukrainian sample were consistent with the theoretical and empirical consequences of exposure to Western media, political change, and shifts in women's roles that have accompanied the

transition from socialism to market economies and democratic governments in Eastern Europe. These findings suggest the importance of conducting follow-up studies in these populations to identify the cultural factors might serve to protect societies from the influence of the Western thin body ideal.

REFERENCES

- Anderson, J.L., Crawford, C.B., Nadeau, J., & Lindberg, T. (1992). Was the Duchess of Windsor right? A cross-cultural review of the socioecology of ideals of female body shape. *Ethology & Sociobiology*, *13*, 197-227.
- Anderson-Fye, A.O. (2004). A "Coca-Cola" shape: Cultural change, body image, and eating disorders in San Andres, Belize. *Culture, Medicine and Psychiatry*, *28*, 561-595.
- Barrett, C., Frederick, D.A., Haselton, M.G., & Kurzban, R. (2006). Can manipulations of cognitive load be used to test evolutionary hypotheses? *Journal of Personality and Social Psychology*, *91*, 513-518.
- Beauty Definitions Can Hardly be Conclusive (2006, January 1). Retrieved November 27, 2006 from: <http://hb.syl.com/beautydefinitionisavaguenotion.html>.
- Becker, A.E. (2004). Television, disordered eating, and young women in Fiji: Negotiating body image and identify during rapid social change. *Culture, Medicine, and Psychiatry*, *28*, 533-559.
- Bergland, S., Ekman, J., & Aarebrot, F.H. (Eds.). (2004). *The handbook of political change in Eastern Europe* (2nd ed.). Northampton, MA: Elgar
- Bilukha, O.O., & Utermohlen, V. (2002). Internalization of Western standards of appearance, body dissatisfaction and dieting in urban educated Ukrainian females. *European Eating Disorders Review*, *10*, 120-137.
- Brewis, A.A., & McGarvey, S.T. (2000). Body image, body size, and Samoan ecological and individual modernisation. *Ecology of Food and Nutrition*, *39*, 105-120.
- Brink, P.J. (1989). The fattening room among the Annang of Nigeria. *Medical Anthropology*, *12*, 131-143.
- Brislin, R.W. (1986). The wording and translation of research instruments. In W.J. Lonner, & J.W. Berry (Eds.), *Field methods in cross-cultural research* (pp137-164). Thousand Oaks, CA: Sage.
- Brown, P.J., & Konner, M. (1987). An anthropological perspective on obesity. *Annals of the New York Academy of Sciences*, *499*, 29-46.
- Bulik, C.M., Wade, T.D., Heath, A.C., Martin, N.G., Stunkard, A.J., & Eaves, L.J. (2001). Relating body mass index to figural stimuli: Population-based normative data for Caucasians. *International Journal of Obesity*, *25*, 1517-1524.
- Cash, T.E., & Henry, P.E. (1995). Women's body images: The results of a national survey in the U.S.A. *Sex Roles*, *33*, 19-28

- Cassidy, C.M. (1991). The good body: When big is better. *Medical Anthropology*, 13, 181-213.
- Catina, A., & Joja, O. (2001). Emerging markets: Submerging women. In M. Nasser, M.A. Katzman, & R.A. Gordon (Eds.), *Eating disorders and cultures in transitions* (pp. 111-119). New York: Taylor & Francis.
- Catina, A., Boyadjieva, S., & Bergner, M. (1996). Social context, gender identity and eating disorders in Western and Eastern Europe: Preliminary results of a comparative study. *European Eating Disorders Review*, 4, 100-106.
- Cohen, J. (1998). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Craig, P.L., Swinburn, B.A., Matenga-Smith, T., Matangi, H., & Vaughn, G. (1996). Do Polynesians still believe that big is beautiful? Comparison of body size and preferences of Cook Island Maori and Australians. *New Zealand Medical Journal*, 109, 200-203.
- Eisenstein, Z. (1993). Eastern European male democracies: A problem of unequal equality. In N. Funk & M. Mueller (Eds.), *Gender politics and Post-communism: Reflections from Eastern Europe and the Former Soviet Union* (pp. 303-317). New York: Routledge.
- Eisler, I. (2001) Commentary 1. In M. Nasser, M.A. Katzman, & R.A. Gordon (Eds.), *Eating disorders and cultures in transitions* (pp. 120-123). New York: Taylor & Francis.
- Forbes, G.B. (in press). Cross-cultural research methods and the study of gender. In J. Chrisler & D.R. McCreary (Eds.), *Handbook of gender research in psychology*: Vol. 2. New York: Springer.
- Forbes, G.B., Doroszewicz, K., Card, K., & Adams-Curtis, L. (2004). Association of the thin body ideal, ambivalent sexism, and self-esteem with body acceptance and the preferred body size of college women in Poland and the United States. *Sex Roles*, 50, 331-345.
- Frederick, D.A., Buchanan, G.M., Sadeghi-Azar, L., Peplau, L.A., Haselton, M.G., Berezovskaya, A., & Lipinski, R.E. (2007). Desiring the muscular ideal: Men's body satisfaction in the United States, Ukraine, and Ghana. *Psychology of Men & Masculinity*, 8, 103-117.
- Frederick, D.A., Fessler, D.M.T., & Haselton, M.G. (2005). Do representations of male muscularity differ in men's and women's magazines? *Body Image*, 2, 81-86.
- Frederick, D.A., Forbes, G.B., Grigorian, K., & Jarcho, J.M. (2007). The UCLA Body Project I: Gender and ethnic differences in self-objectification and body satisfaction among 2,206 undergraduates. *Sex Roles*, 57, 317-327.
- Frederick, D.A., & Haselton, M.G. (2007). Why is male muscularity sexy? Tests of the fitness indicator hypothesis. *Personality and Social Psychology Bulletin*, 33, 1167-1183.

- Frederick, D.A., Peplau, L.A. & Lever, J. (2006). The swimsuit issue: Correlates of body image in a sample of 52,677 heterosexual adults. *Body Image*, 4, 413-419.
- Gangestad, S.G., Haselton, M.G., & Buss, D.M. (2006). Evolutionary foundations of cultural variation: Evoked culture and mate preferences. *Psychological Inquiry*, 17, 75-95.
- Haselton, M.G., Mortezaie, M., Pillsworth, E.G., Bleske-Rechek, A., & Frederick, D.A. (2007). Ovulatory shifts in human female ornamentation: Near ovulation, women dress to impress. *Hormones and Behavior*, 51, 40-45.
- Jung, J., & Forbes, G.B. (2007). Assessment of body dissatisfaction and disordered eating in three cultures: Comparisons of Chinese, South Korean, and American college women. *Psychology of Women Quarterly*, 31, 381-393.
- Jung, J., & Lee, S-H. (2006). Cross-cultural comparisons of appearance self-schema, body image, self-esteem, and dieting behavior between Korean and U.S. women. *Family and Consumer Sciences Research Journal*, 34, 350-365.
- King, B. (2006). Orientalizing sexism: Hye Rim Lee's Toki. *Afterimage*, 33, 25-29.
- Levine, M.P., & Smolak, L. (1996). Media as a context for the development of disordered eating. In L. Smolak, M.P. Levine, & R. Striegel-Moore (Eds.), *The developmental psychopathology of eating disorders* (pp. 235-257). Hillsdale, NJ: Erlbaum.
- McGarvey, S. (1991). Obesity in Samoans and a perspective in its aetiology in Polynesians. *American Journal of Clinical Nutrition*, 53, 86-94.
- Nasser, M. (1997). *Culture and weight consciousness*. New York: Routledge.
- Nasser, M., Katzman, M.A., & Gordon, R.A. (2001). *Eating disorders and cultures in transitions*. New York: Taylor & Francis.
- Nelson, L.D., & Morrison, E.L. (2005). The symptoms of resource scarcity: Judgments of food and finances influence preferences for potential partners. *Psychological Science*, 16, 167-173.
- Peplau, L.A., Frederick, D.A., Yee, C.K., Maisel, N., Lever, J., & Ghavami, N. (in press). Body image satisfaction in heterosexual, gay, and lesbian adults. *Archives of Sexual Behavior*.
- Platak, S.M., Critton, S.R., Burch, R.L., Frederick, D.A., Myers, T.E., & Gallup, G.G., Jr. (2003). How much resemblance is enough? Sex differences in reactions to resemblance, but not the ability to detect difference. *Evolution and Human Behavior*, 24, 81-87.
- Pokrajac-Bulian, A., & Ambrosi-Randić, N. (2007). Sociocultural attitudes towards appearance and body dissatisfaction among adolescent girls in Croatia. *Eating and Weight Disorders*, 12, e86-e92.
- Polivy, J., & Herman, C.P. (2002). Causes of eating disorders. *Annual Review of Psychology*, 53, 187-213.

- Rathner, G. (2001). Post-communism and the marketing of the thin ideal. In M. Nasser, M. A. Katzman, & R. A. Gordon (Eds.), *Eating disorders and cultures in transitions* (pp. 93-104). New York: Taylor & Francis.
- Richerson, P.J., & Boyd, R. (2005). *Not by genes alone: How culture transformed human evolution*. Chicago: University of Chicago Press.
- Rukavina, T., & Pokrajac-Bulian, A. (2006). Thin-ideal internalization, body dissatisfaction and symptoms of eating disorders in Croatian adolescent girls. *Eating and Weight Disorders, 11*, 31-37.
- Salska, I., Frederick, D.A., Pawlowski, B., Reilly, A., Laird, K., & Rudd, N. (2008). Conditional mate preferences: Factors influencing preferences for height. *Personality and Individual Differences, 44*, 203-215.
- Silverstein, B., & Perlik, D. (1995). *The cost of competence: Why inequality causes depression, eating disorders, and illness in women*. New York: Oxford University Press.
- Spitzer, B.L., Henderson, K.A., & Zivian, M.T. (2004). Gender differences in population versus media sizes: A comparison over four decades. *Sex Roles, 40*, 545-565.
- Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin, 128*, 825-848.
- Swami, V., & Tovee, M.J. (2006). Does hunger influence judgments of female physical attractiveness? *British Journal of Psychology, 97*, 353-363.
- Swami, V., & Tovee, M.J. (2007). The relative contribution of profile body shape and weight to judgments of women's physical attractiveness in Britain and Malaysia. *Body Image, 4*, 391-396.
- Thompson, M.A., & Gray, J.J. (1995). Development and validation of a new body-image assessment scale. *Journal of Personality Assessment, 64*, 258-269.
- Thompson, J.K., & Heinberg, L.J. (1999). The media's influence on body image disturbance and eating disorders: We've reviled them, now can we rehabilitate them. *Journal of Social Issues, 55*, 339-353.
- Tiggemann, M. (2004). Body image across the adult life span: Stability and change. *Body Image, 1*, 29-41.
- van de Vijver, F., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Thousand Oaks, CA: Sage.
- Wertheim, E.H., Paxton, S.J., & Tilgner, L. (2004). Test-retest reliability and construct validity of the Contour Drawing Rating Scale in a sample of early adolescent girls. *Body Image, 1*, 199-205.
- Wilkinson, J., Ben-Tovim, D., & Walker, M. (1994). An insight into the personal significance of weight and shape in large Samoan women. *International Journal of Obesity, 18*, 602-606.

- Williamson, D.A., White, M.A., Newton, R., Jr., Alfonso, A., & Stewart, T.M. (2005). Association of body size estimation and age in African-American females. *Eating and Weight Disorders, 10*, 216-221.
- Wlodarczyk-Bisaga, K., & Dolan, B. (1996). A two-stage epidemiological study of abnormal eating attitudes and their prospective risk factors in Polish schoolgirls. *Psychological Medicine, 26*, 1021-1032.
- Wlodarczyk-Bisaga, K., Dolan, B., McCluskey, S., & Lacey, H. (1995). Disordered eating behaviour and attitudes toward weight and shape in Polish women. *European Eating Disorders Review, 3*, 1-12.
- Wolf, N. (1991). *The beauty myth: How images of beauty are used against women*. New York: Morrow.

Received: 30/09/2008

PRAZNA STRANICA