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Physical Attractiveness: The Influence of Selected Torso Parameters

T. Horvath, Ph.D.[1]

Front-view line drawings of male and female physiques were rated for attractiveness. Both subject sexes rated female physiques with greater curvature as less attractive. Male subjects' ratings were unaffected by breast size while female subjects showed slight negative evaluation of large breasts. Both subjects sexes rated broad shoulders as attractive in male physiques. Greater chest muscularity resulted in slightly higher attractiveness ratings; waist slimness was also judged attractive, particularly by female subjects.

KEY WORDS: physique attractiveness; breast size; figure curvedness; shoulder width; muscularity; waist fat.

INTRODUCTION

The criteria which define human physical attractiveness have been the subject of some conjecture but little direct evidence (Berscheid and Walster, 1974; Huston and Levinger, 1978). Horvath (1979) suggested that prior attempts to identify influential physique parameters (Wiggens *et al.*, 1968; Wiggens and Wiggens, 1969; Lavrakas, 1975; beck *et al.*, 1976) failed to detect strong consensus because the stimuli used were not sufficiently lifelike. It was shown that when stimulus figures were constructed according to established anthropometric dimensions and lifelike contours, subjects exhibited substantial agreement concerning the attractive value of male and female physique variables. The present report describes a further study using similar techniques which also found a high degree of attractiveness ratings consensus.

[1]Department of Psychology, University of Windsor. Windsor, Ontario, Canada N9B 3P4.

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METHOD

Eighty-one male and 178 female volunteers enrolled in Introductory Psychology saw 24 front-view line drawings, 12 male and 12 female physiques, and rated each for attractiveness on a 9-point scale. The preparation of the stimulus drawings, their presentation to the subjects, and other procedural details were as described by Horvath (1979). The female stimuli presented three breast sizes and four degrees of figure curvedness in all combinations. Figure curvedness (hit width/waist width) occurred at the four levels of: 1.36 (32 cm/23.5 cm), 1.49 (33.5 cm/22.5 cm), 1.63 (35 cm/21.5 cm), and 1.71 (36 cm/21 cm). These hip and waist widths, expressed as life-size dimensions, were selected so as to control for figure slenderness (hip width X waist width). The male stimuli presented two shoulder widths (40.75 cm and 43.75 cm; see Horvath, 1979), three degrees of chest muscularity emphasis, and presence-absence of waist fat, in all combinations. Waist fat was depicted as a slight, normal-shaped bulge (1 cm on each side) between the waist proper and the hip crest. Thus waist width was constant for all figures with the manipulated variable being presence-absence of a small "spare tire." At the end of the testing session a questionnaire asking subjects to identify the physique variations provided confirmation that the manipulated parameters were perceived as variables.

RESULTS AND CONCLUSIONS

Female Figures

The raw data were subjected to a 3 X 4 repeated measures ANOVA separately for male and female subjects. Greater figure curvature resulted in lower attractivness ratings by both sexes (females $F = 300.92$, df = 3/531, $p < 0.0001$; males $F = 85.29$, df = 3/240, $p < 0.0001$). Application of the Tukey HSD procedure showed that for female subjects the curvedness levels differed significantly from each other. For male subjects levels 1.36 and 1.49 did not differ but all other comparisons were significant. The product-moment correlation between curvedness and mean attractiveness ratings was significant for both sexes (females $r = -0.86$, $p < 0.001$; males $r = -0.82$, $p < 0.002$). Previous findings had shown that wide hips are judged unattractive (Horvath, 1979), and in the present study inspection of the posttest questionnaire indicated that curvedness tended to be seen as hippiness. However, since the degree of negative relationship was greater than that observed when hip width was varied independently, it would appear that a sharply breaking body line is seen as unattractiveness over and above absolute hip width effects.

Breast size affected female subjects' ratings ($F = 9.38$, df = 2/354, $p < 0.0001$), but males were unaffected ($F = 0.10$). Application of the Tukey HSD procedure to the female data showed that the largest breast size was rated less attractive than either the small or middle sizes, which did not differ. A chi-square test of independence on the number of references to breasts by subject sex on the posttest questionnaire yielded a significant result ($\chi^2 = 6.18$, $p < 0.05$) and showed that proportionately more males than females made reference to this variable. Thus the failure of the male subjects to discriminate in terms of attractiveness ratings was not because the variation went unnoticed. The correlation between breast size and attractiveness ratings was not significant for either sex. These findings appear to contradict a widespread belief that men are attracted by large breasts. It is important to note, however, that there are many conceivable combinations of breast size and shape, and that the present results are preliminary data regarding one approach to size manipulation, namely, the progressive downward and outward positioning of the breast on the body surface combined with outward rotation of the breast axis. Given these considerations the use of the phrase breast size may be a misleading over-simplification, and broad conclusions regarding the role of this physique variable in feminine attractiveness are unwarranted at this stage.

Male Figures

The raw data were subjected to a 2 X 3 X 2 repeated measures ANOVA separately for male and female subjects. Chest muscularity was significant for both sexes (females $F = 55.51$, df = 2/354, $p < 0.0001$; males $F = 28.70$, df = 2/160, $p < 0.0001$). Application of the Tukey HSD procedure showed that, for both sexes, the most muscular physiques were preferred over the middle and least muscular, which did not differ. The correlation between chest muscularity and attractiveness ratings was not significant for either sex. When compared to other variables manipulated in this, and previous research (Horvath, 1979), chest muscularity appears to be a minor influence on male physique attractiveness. As expected from previous data, broad shoulders were seen as attractive by both sexes and the effect of this variable in the present study was similar to that previously reported. The shoulder width factor was included in the present study to determine whether it interacted with a muscularity dimension, but no interaction was observed.

The waist fat variable produced a subject sex difference in that female subjects, while similarly negative toward figures possessing a "spare tire," reacted much more favorably toward figures without one. In the ANOVA this factor was significant for both sexes (females $F = 199.01$, df = 1/177,

$p < 0.0001$; males $F = 22.50$, df = 1/80, $p < 0.0001$); however, the correlation with mean attractiveness ratings was significant for females ($r = -0.60, p < 005$) but not for males. A chi-square test of independence on the number of references to the waist area by subject sex on the posttest questionnaire yielded a significant result ($\chi^2 = 6.16, p < 0.05$) and showed that proportionately more females than males made reference to this variable. Waist fat interacted to depress the attractiveness of chest muscularity (both sexes) and broad shoulders (female subjects). Taken altogether these results suggest that the waist fat "spare tire" is a meaningful contributor to the perceived attractiveness of male physiques and is substantially more influential for female than for male judges.

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