

Waist-hip ratio predicts women's preferences for masculine male faces, but not perceptions of men's trustworthiness

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Several studies show that attractive women demonstrate stronger preferences for masculine men than relatively unattractive women do¹⁻⁴. Such condition-dependent preferences may occur because attractive women can more easily offset the costs associated with choosing a masculine partner, such as lack of commitment and less interest in parenting⁵. Alternatively, if masculine men display negative characteristics less to attractive women than to unattractive women, attractive women may perceive masculine men to have more positive personality traits than relatively unattractive women do.

Here, we examined how two indices of women's attractiveness, body mass index (BMI) and waist-hip ratio (WHR), relate to preferences for masculinized versus feminized male faces. We also measured attributions of trustworthiness in order to determine if the association between women's attractiveness and masculinity preference was driven by differences in the attribution of prosocial traits. If WHR and/or BMI predict both the attractiveness and trustworthiness of masculine male faces, this would suggest that attractive women prefer masculine men more than relatively unattractive women do because attractive women perceive lower costs of choosing a masculine partner. However, if WHR and/or BMI predict the attractiveness of masculine male faces, but do not predict their perceived trustworthiness, this would suggest that attractive women do perceive costs to choosing a masculine partner and, perhaps, believe they can better offset these costs.

Methods

Women ($N = 42$, ages: $M = 19.8$ years, $SD = 1.93$ years) who were not using any form of hormonal contraceptive were shown 20 pairs of men's faces, each pair consisting of a feminized (top) and a masculinized (bottom) version of the same individual. In one test, they were asked to choose the face in each pair that was more attractive. In a second test, they were asked to choose the face in each pair that was more trustworthy.

In addition, participants' height, weight, waist circumference and hip circumference were measured in order to calculate body mass index (BMI), and waist-hip ratio (WHR).



Results

For analysis, the variables 'masculinity attractiveness' and 'masculinity trustworthiness' were calculated as the proportion of trials where the masculine male face was chosen as more attractive or more trustworthy.

The relationship between masculinity attractiveness and women's body measurements was analyzed using linear regression [predictors: age, BMI, WHR]. WHR was negatively associated with masculinity attractiveness ($t = -2.12$, $p = .041$, $\beta = -.34$) such that preferences for masculine faces were associated with low (i.e. attractive) WHRs. Neither BMI ($t = 1.34$, $p = .19$, $\beta = .21$) nor age ($t = -0.76$, $p = .45$, $\beta = .12$) predicted masculinity attractiveness.

The relationship between masculinity trustworthiness and women's body measurements was analyzed using a second linear regression [predictors: age, BMI, WHR], which revealed no significant effects for age, BMI or WHR (all t s < 1.01 , p s $> .32$, β s $< .17$).

Consistent with previous studies², women with a low (i.e. attractive) WHR had stronger preferences for masculine male faces than did women with a relatively high (i.e. unattractive WHR) did. This relationship remained significant when controlling for possible effects of BMI. Importantly, neither WHR nor BMI predicted perceptions of trustworthiness. These findings present converging evidence for condition-dependent mate preferences in women and suggest that such preferences do not reflect individual differences in the extent to which pro-social traits are ascribed to feminine versus masculine men.

References: [1] Little et al. (2001). *Proc Roy Soc Lond B*, **268**, 39-44. [2] Penton-Voak, Little, Jones, Burt, Tiddeman & Perrett (2003). *J Comp Psychol*, **117**, 264-271. [3] Little & Mannion (2006). *An Behav*, **72**, 981-998. [4] Vukovic et al. (2008). *Pers Ind Diff*, **45**, 451-456. [5] Fink & Penton-Voak (2002). *Cur Dir Psychol Sci*, **11**, 154-158.

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