

Evaluation of own face with different hairdos of less attractive females is more similar to raters' opinion: An alternative mate choice tactic

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European Human Behaviour & Evolution
Association Conference
April 6-8 2009
St Andrews UK

1. Theoretical background

Female face and head hair

The widespread view in the social sciences that physical beauty is arbitrary has been seriously questioned recently by evolutionary psychology (Gangestad and Simpson 2000). Human beings have been selected to be able to evaluate cues associated with the reproductive value of a potential mate (Buss and Schmitt 1993; Langlois et al. 2000; Symons 1979). For females, age has a relatively invariant association with fertility and thus with their mate value. Since their fecundity sharply declines with age, body traits indicating their youth are preferred by males (Bereczkei et al. 1997; Buunk et al. 2001; Kenrick and Keefe 1992).

Although facial traits that are judged beautiful across cultures have been investigated using a framework of sexual selection theory, the effects of head hair on our esthetic evaluations have rarely been examined from an evolutionary perspective. Yet, hair plays a significant role in our mate choice (Kingsley 1995) Meskó and Bereczkei (2004) found that long hair had a significant positive effect on ratings of women's attractiveness and this hairstyle caused significant change in the dimension of health. Male raters considered the longer-haired female subjects' health status better, especially if the subjects were less attractive women. Bereczkei and Meskó (2006) shows that the physical appearance of long-haired women was rated high, regardless, of whether their facial attractiveness was valued high or low. Raters judged those women as the most attractive whose face displayed neotenous features in the center of the face (large eyes, small nose) and sexual maturity features, such as long head hair at the periphery. Furthermore, desirable psychological and social traits were attributed to individuals with different hairstyles: male raters associated long hair with the image of a determined, intelligent, independent, and healthy individual, whereas short hair was associated with characteristic features such as honest, caring, emotional, feminine.

Alternative mate choice tactic

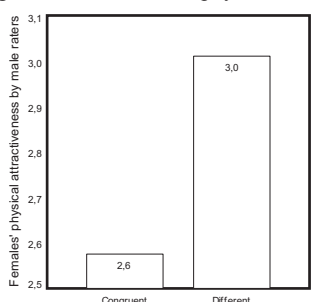
The theory of alternative mate choice strategies (Gross 1996, Waynforth 1998, 1999, 2000) described the following in male intrasexual competition. Individuals with poor genetic quality (physically less attractive, higher asymmetry) use alternative mate choice strategies, which are important for reproductivity in a different way. Males with higher willingness to parental investment increase their adaptive fitness using an alternative behavior, with which they try to compensate for poorer genetic quality.

3. Method

Testing our hypothesis we made standard portraits of volunteer women ($n=49$, age = 21.02 ± 2.32 , min = 18.8, max = 30.2), and let their beauty be judged by men ($n=39$, age = 23.58 ± 2.73 , min = 19.3, max = 31.5) on a scale of seven. The portraits were completed by 15 different hairstyles using a computer program, (Cosmopolitan MyStyle2.) and (female and male) participants were asked to rank the portraits from best to least suiting hairstyles (Figure #1.). So, two strings of data were obtained concerning each woman: (1) their own opinion on their faces with different hairstyles, (2) the averaged opinion of men on the same faces.

4. Results

The task of 39 male raters was to see the tablovs of each 49 women and make a hierarchy rank (on each tablovs) of different hairstyles by clicking the pictures (with the computer mouse) from the most beautiful to the less attractive. The female participants' task was similar, but they saw only their own faces (with different hairdos). We compared the males' rank to each women's own-portrait preference using Kendall Tau-b correlation matrix. By this method we made two groups of women. (1) Different - There was no correlation between females own hierarchy-rank and males' preference ($n=32$); and (2) Congruent - There was significant correlation ($p<0.5$) between preferences ($n=17$). In the next step we used VA between thistwo constituted groups of females and found significant difference in physical attractiveness ($F(1, 38) = 89.27, p<0.001$).



Own portrait preference compared to males' opinion

Analysing the two hierarchy ranking we found out whose decision is in accordance with preferences of men, and who form their opinion on their physical appearance independent from male preferences.

2. Hypotheses and predictions

In this research was aimed at the effect of women's attitude and hairstyling habits on their mate choice strategies. Presumably similar selectional pressure connected to intrasexual competition can work among women with different phenotypic qualities, which results in different individual strategies in order to increase their genetic succes. We hypothesise less attractive women to compensate their unbecoming biological traits of their faces (maturity instead of neoteny, masculine facial regions instead of oestrogen markers) with other features, such as long and healthy hair, which improves the judgment of facial attractiveness, and with styling attitude favoured by men, which can increase succes in mate choice.



Figure #1. One female face with 15 different hairstyles. Sample dialogue-window of the computer program shown to the participant. The task of 39 male raters was to see the tablovs of each 49 women and make a hierarchy rank (on each tablovs) of different hairstyles by clicking the pictures (with the computer mouse) from the most beautiful to the less attractive. The female participants' task was similar, but they saw only their own faces (with different hairdos).

5. Discussion

We suggest that female hairstyling is embedded in the broader context of own phenotypical condition (communicated by the face). After evaluating biologically given markers of beauty, individuals use alternative strategies, which can help them maximize their matechoice succes. Hair and hairstyling attitudes altering attractiveness of the face can be a means of it. Less attractive women seem to be more sensitive to be judged by males, so their form their opinions in accordance with male preferences. They wear longer hair, what enables them to style their hair in many ways, accomodating to men's demand on variety. These tactics help them spend less time alone between two relationships. They possibly try to maximize their matechoice succes with short-term relationships. Women increasing the number of partners can gain genetic benefit in reproduction through a multidimensional mechanism. Women judged more attractive based on their faces with better genetic qualities can afford to make decisions concerning their appearance independent of male preferences, because favourable phenotypic features direct men's choices to them anyway. So variety in female attitudes toward hairstyling can be conceptualized as part of women's intrasexual competition in reaching partners with better qualities (Jennions and Petrie 2000).

This is vital because in contrast with the animal kingdom where usually females choose, because they show higher parental investment, while males rarely participate in rearing an offspring other than mating - in our species women can be chosen, and men make important paternal investments in rearing an offspring. According to several authors the evolutionary importance of women's physical attractiveness in matechoice evolved paralel to the wide spread of paternal investments.