

Darwinian aesthetics: Perfect faces, perfect bodies, perfect genes? An evolutionary psychological approach to beauty

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Humans tend to judge and sort parts of their social and non-social environment permanently into a few basic categories: those parts they like and those parts they don't. Indeed we have developed aesthetic preferences for those things and people we are exposed to. And, needless to say, these preferences shape our behavioural choices - our tendency to seek out or avoid what the world has to offer to us. Humans and other animals have evolved preferences for food and habitats, for naturally occurring sensations like smells and sounds, as well as for the broad array of culturally created artefacts.

Last but not least, humans have also evolved aesthetic preferences for their sexual and social companions. In this talk I will review the current approaches in attractiveness research, I will deal with the obsession about beauty, and review the biological constraints which create the bases for beauty traits as honest mating signals. If evolutionary approaches to beauty are correct, beauty signals should have a direct relation to health, and reproductive success (1).

The pillars of beauty identified up to now are averageness, symmetry, and sex-hormone markers, which find their expression in form, skin texture, body motion, body odour, voices and hair complexion. We suggest that the content of these signals is redundant, and points in the same direction (2).

On the side of the perceiver I will explore which brain structures are responsible for beauty perception and propose a perceptive model which is based on biologically based construction rules for “what is beautiful” and not on the content of the signals themselves. These construction rules can be modified by several constraints like female cycle, socioeconomic status or self-perception – which makes beauty perception a plastic concept which is able to adapt to a row of socioeconomic situations and environments (3).

In a final part I will try to present evidence how beauty traits develop and what consider the evidence for their relation to genetic factors like heterocycy and developmental factors like prenatal hormonal environment.

(1) Grammer, K., Fink, B., Møller, A.P., & Thornhill, R.(2003). Darwinian Aesthetics: Sexual Selection and the Biology of Beauty. *Biological Reviews*.78/3 pp. 385-407.

(2) Grammer, K., Fink, B., Juette, A., Ronzal, G. & Thornhill, R. (2001). Female faces and bodies: n-dimensional feature space and attractiveness. In: G. Rhodes & L. Zebrowitz (Eds.). *Advances in*

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(3) Johnston, V.S., Hagel, R., Franklin, M., Fink, B. & Grammer, K. (2001). Male facial attractiveness: Evidence for hormone mediated adaptive design. *Evolution and Human Behavior*, 22(4), 251-267