

Sexual dimorphism and attractiveness in human faces

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At the age of puberty, the physical differences between human males and females become more evident. The effect of testosterone in the faces of young men produces structural changes as the growth of the jaw, cheekbones, brow ridges and facial hair. From an evolutionary perspective, masculinity is proposed to be attractive in men, since it advertises the quality of an individual in terms of heritable benefits, i.e. good genes passed to the offspring. However, if females are considering a long-term relationship, a preference for more feminine facial traits in men may arise, since less masculine men have been associated with better parenting, less aggressiveness, higher honesty and warmth. A preference for a more feminised facial structure has been found in previous studies. In our work, facial skin coloration is proposed to be a sexually dimorphic feature (i.e., to significantly differentiate between men and women), in addition to shape. Overall skin colour has strong effects on apparent health and attractiveness in human faces. Skin colour varies considerably between people from different regions of the globe but is hypothesized to be sexually dimorphic within a specific region.

In this study, we aimed to test this hypothesis and to understand how the two dimensions of sexual dimorphism, skin colour and shape, contribute to women's judgments of male facial attractiveness. In three experiments, participants were able to manipulate independently or simultaneously the two sexually dimorphic parameters. In line with previous research, we found a clear preference for feminine shape in male faces. However, participants searching for the most attractive appearance while considering either short or long-term relationship contexts chose to masculinise the colour of male faces more than the colour of female faces (Fig. 1). Our results suggest that a darker, redder and yellower complexion is typically masculine (Fig. 2) and, importantly, seems to be attractive in males. These results provide evidence that skin colour might constitute an additional criterion in sexual selection processes.

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FIGURE 1
Mean masculinity level preferred (in colour and shape) for male faces according to long- and short-term relationship contexts. Error bars show standard errors of the mean.

FIGURE 2
Colouration applied to faces along sexually dimorphic colour. A represents low masculinisation, B is the original image and C represents high masculinisation.

