Physical Appearance & Mate Choice

This activity will help you to:

- Understand how evolution and sexual selection has shaped human appearance
- Explain why humans have evolved to find certain features attractive
- Read complex psychological material
- Apply psychological ideas to real situations

A selection from *Miller, G. F. (1998). How mate choice shaped human nature: A review of sexual selection and human evolution. In C. Crawford & D. Krebs (Eds.), Handbook of evolutionary psychology: Ideas, issues, and applications (pp. 87-130). Lawrence Erlbaum.*

Humans show sexual dimorphism in several traits. Compared to females, males on average have more height and mass, more upper-body strength, higher metabolic rates, more facial and bodily hair, deeper voices, larger brains, and riskier life histories, with higher juvenile mortality, later sexual maturity, and earlier death (Ankney, 1992; Daly & Wilson, 1983, 1988; Ghesquiere, Martin, & Newcombe, 1985; Rushton, 1995; Short & Balaban, 1994). Our moderate size dimorphism is consistent with our species having evolved under a moderately polygynous mating system, with more intense sexual competition between males than between females (Fleagle, Kay, & Simons, 1980; Martin, Willner, & Dettling, 1994). But human bodies reveal much more than just the degree of ancestral polygyny; they indicate a wide array of mate choice criteria used by our male and female ancestors.

The human face is a major target of selective mate choice during all stages of courtship, from flirtation through face-to-face copulation. Research on human facial aesthetics has boomed in the last few years (Alley & Cunningham, 1991; Brown & Perrett, 1993; Langlois & Roggman, 1990; Perrett, May, & Yoshikawa, 1994), revealing that average faces are attractive, but that females with more `neotenous' (child-like) faces, including large eyes, small noses, and full lips, are still more attractive, as are males will testosterone-enlarged features such as high cheekbones, strong jaws, strong chins, and large noses (R. Thornhill & Gangestad, 1993). Bilateral symmetry is another important determinant of facial beauty, because symmetry correlates with "developmental competence"— resistance to disease, injury, and harmful mutations that cause "fluctuating asymmetry" during development (Moller & Pomiankowski, 1993; R. Thornhill & Gangestad, 1993). Also, as Darwin (1872) emphasized, human facial musculature is uniquely well-developed for displaying a variety of expressions, many of which are used in courtship.

Female human breasts and buttocks have undergone sexual elaboration through mate choice by males. These organs store substantial amounts of fat, so could function as indicators of female nutritional status and hence fertility (Low, Alexander, & Noonan, 1987; Szalay & Costello, 1992). Singh (1993) showed that males prefer women who display a low waist-to-hip ratio (WHR), ideally about 0.70, concordant with enlarged buttocks indicating sufficient fat reserves, and a narrow waist indicating non-pregnancy. Permanent enlargement of breasts and buttocks is also fairly effective at concealing ovulation (Margulis & Sagan, 1991; Szalay & Costello, 1992). Females who do not reveal their menstrual or lactational cycles may benefit from male uncertainty by being able to solicit male attention and investment even when they are not really fertile: "From hairy, flat-chested ape to modern buxom woman ... males were kept guessing about when females were ovulating" (Margulis & Sagan, 1991, p. 96). More generally, the loss of a specific estrus period, combined with `concealed ovulation' and `continuous sexual receptivity', may have allowed females to attract more continuous attention (e.g. protection, provisioning, social support) from males even when they were not ovulating (Alexander & Noonan, 1979; H. Fisher, 1982; Hrdy, 1981, 1988; Hrdy & Whitten, 1987; Tanner, 1981).

Glossary:

Bilateral symmetry: looking the same on each side
Estrus period: the time during which a female is able to conceive offspring
Lactation: the production of milk for breast feeding
Polygynous: a mating system where one male mates with more than one female
Sexual dimorphism: when the males and females of a specie differ in their form

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