Aesthetic Dentistry


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Mankind has always been interested in beauty and attractiveness. The search for a universal beauty ideal is a major topic in everyday life as well as in science. Evolutionary and cognitive theories try to give answers to the question of what is perceived as being beautiful and why this is so. In social psychology, it is furthermore investigated which effects in social life correlate with an attractive appearance.

The second part of “The Psychology of Aesthetics” (“Perception of Beauty: What is Beauty?”), appeared in our No. 23/4, 4th edition, mainly dealt with cognitive theories that use a neural basis to explain why people prefer symmetric faces. This third part in the series explains evolutionary theories, which are rarely involved in current scientific studies.

All the different angles clut at straws when deviations from the prevalent beauty ideal can be found. Attractiveness underlies cultural differences as well as differing opinions over the history of mankind. The main focus of this article is these differences. To exemplify this, we will create another attractive person that we will call Chamelea. As the name indicates, Chamelea is a very changeable person who can, depending on the time and culture we put her into, adapt her outer appearance to be considered beautiful. But before we start the time travel, we’ll have a look at the evolutionary perspective of mate selection.

Evolutionary Theories

In his fundamental work “Origin of Species,” Darwin developed several basic principles of evolutionary selection (1859). He argued that those beings survived who adapted to changes in the environment (natural selection). Later, he introduced the concept of sexual selection (Darwin 1871). This concept says that males of one species compete in order to attract females. To achieve this, they have to compete against conspecifics of their own kind (intersexual selection). Additionally, members of the other sex are perceived to have favorable characteristics (intratexual selection). This perspective leads to an adjustment of the being’s own characteristics and the establishment of the species where extreme characters are avoided. Individuals who come near the group of the species are less endangered of mutation than those individuals whose characteristics differentiate from the norm (e.g., Barash 1982; Rumpf 1989; Dobzhansky, 1970; Symons 1979). Since norm-oriented individuals father descendants that also possess these stabilizing characteristics, they are preferred as potential partners and have the best selection chances.

Furthermore, sexual selection also depends on reproduction ability. Individuals who father more descendants have higher chances of survival than individuals who live longer. Following this hypothesis, on the one hand it is important to have characteristics that are different from the rest of the group in order to be noticed. On the other hand, it is advantageous to have characteristics that are similar in all aspects. Results showed that the derived features were preferred. Magro then compared these derived characteristics to the Barbie doll, which was first marketed in 1959 (Roy 1987). Numerous features of the doll are comparable to human traits that have been made over the last 3 to 4 million years.

Following Magro’s thoughts, Barbie reflects the prototype of human beauty. She has long legs, a narrow waist, full red lips, huge eyes, straight symmetry in the body and has a hip-to-head ratio of 1:5. According to Magro, these derived characteristics are linked to a high fitness level are considered beautiful (for further reading, see Magro 2007). In order to show that science is in line with everyday phenomena as well, a study by Magro (1995) is worth noting.

Magro sees a somewhat unusual connection between evolution and the beauty ideal. On the basis of human history, he explains why Barbie is perceived as beautiful. Students evaluated drawings and photographs of persons with green or black hair with different facial features. Ancient human beings possessed shorter legs, curved noses, a shorter neck and a broader waist than today. Students looked at two pictures that differed slightly in a single anatomical trait, but were similar in all other aspects. Results showed that the derived features were preferred. Magro then compared these derived characteristics to the Barbie doll, which was first marketed in 1959 (Roy 1987). Numerous features of the doll are comparable to human characters that have been made over the last 3 to 4 million years.

More recently, Margo (2007) showed that the derived features are related to human mating strategies. He found that the derived features are considered beautiful because they are linked to a high fitness level.

The connection between immunity and ornamentation was investigated by Hamos Zuck (1982). The tail feathers of swallows were larger and more symmetric, whereas the more the swallow was plagued by parasites and infections. Thus, he found that these traits are linked to a fact that one can fight against alladversaries. The tail feathers of the swallow or the peacock are a outward sign of the birds’ resistance against parasites. The greater the ornation, the more the swallow may be considered beautiful. Individuals that possess these characteristics have higher chances of survival since they need enormous energy to develop and maintain them. To allow one- self the luxury of these conspicuous features the individual has to have resources and reserves in plentiful supply.

Intrasexually, the ornaments help to scare the competitors, interfere with the mating process or are recognized as such by the opponent species. Interestingly, the ornamentation is part of the Darwin’s theory of the sexual selection of the good genes or the “handicap theory” (1975). Extreme ornaments like a peacock’s tail feathers, or a deer’s antlers reduce the possibility of survival since they need enormous energy to develop and maintain them. To allow oneself the luxury of these conspicuous features the individual has to have reserves and reserves in plentiful supply.

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