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Looking Good: The Psychology and Biology of Beauty

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In ancient Greece, Helen of Troy, the instigator of the Trojan War, was the paragon of beauty, exuding a physical



Model Cindy Crawford, an example of symmetry

Image courtesy of www.cindy.com

brilliance that would put Cindy Crawford to shame. Indeed, she was the toast of Athens, celebrated not for her kindness or her intellect, but for her physical perfection. But why did the Greek men find Helen, and other beautiful women, so intoxicating?

In an attempt to answer this question, the philosophers of the day devoted a great deal of time to this conundrum. Plato wrote of so-called "golden proportions," in which, amongst other things, the width of an ideal face would be two-thirds its length, while a nose would be no longer than the distance between the eyes. Plato's golden proportions, however, haven't quite held up to the rigors of modern psychological and biological research -- though there is credence in the ancient Greeks' attempts to determine a fundamental symmetry that humans find attractive.

Symmetry is attractive to the human eye

Today, this symmetry has been scientifically proven to be inherently attractive to the human eye. It has been defined not with proportions, but rather with similarity between the left and right sides of the face. Thus, the Greeks were only partially correct.

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Babies spend more time staring at pictures of symmetric individuals than they do at photos of asymmetric ones. Moreover, when several faces are averaged to create a composite -- thus covering up the asymmetries that any one individual may have -- a panel of judges deemed the composite more attractive than the individual pictures.

Victor Johnston of New Mexico State University, for example, utilizes a program called FacePrints, which shows viewers facial images of variable attractiveness. The viewers then rate the pictures on a beauty scale from one to nine. In what is akin to digital Darwinism, the pictures with the best ratings are merged together, while the less attractive photos are weeded out. Each trial ends when a viewer deems the composite a 10. All the perfect 10s are super-symmetric.

Scientists say that the preference for symmetry is a highly evolved trait seen in many different animals. Female swallows, for example, prefer males with longer and more symmetric tails, while female zebra finches mate with males with symmetrically colored leg bands.



Female zebra finches prefer males with symmetric colorings.

Image courtesy of www.finchworld.com/zebra.html

The rationale behind symmetry preference in both humans and animals is that symmetric individuals have a higher mate-value; scientists believe that this symmetry is equated with a strong immune system. Thus, beauty is indicative of more robust genes, improving the likelihood that an individual's offspring will survive. This evolutionary theory is supported by research showing that standards of attractiveness are

similar across cultures.

According to a University of Louisville study, when shown pictures of different individuals, Asians, Latinos, and whites from 13 different countries all had the same general preferences when rating others as attractive -- that is those that are the most symmetric.

Beauty beyond symmetry

However, John Manning of the University of Liverpool in England cautions against over-generalization, especially by Western scientists. "Darwin thought that there were few universals of physical beauty because there was much variance in appearance and preference across human groups," Manning explained in email interview. For example, Chinese men used to prefer women with small feet. In Shakespearean England, ankles were the rage. In some African tribal cultures, men like women who insert large discs in their lips.

Indeed, "we need more cross-cultural studies to show that what is true in Westernized societies is also true in traditional groups," Manning said in his 1999 article.

Aside from symmetry, males in Western cultures generally prefer females with a small jaw, a small nose, large eyes, and defined cheekbones - features often described as "baby faced", that resemble an infant's. Females, however, have a preference for males who look more mature -- generally heart-shaped, small-chinned faces with full lips and fair skin. But during menstruation, females prefer a soft-featured male to a masculine one. Indeed, researchers found that female perceptions of beauty actually change throughout the month.



Sizing up the wasit-to-hip ratio: In general, men prefer women with a low WHR.

Image courtesy of health.discovery.com

When viewing profiles, both males and females prefer a face in which the forehead and jaw are in vertical alignment. Altogether, the preference for youthful and even infant-like, features, especially by menstruating women, suggest people with these features have more

long-term potential as mates as well as an increased level of reproductive fitness.

Scientists have also found that the body's proportions play an important role in perceptions of beauty as well. In general, men have a preference for women with low waist-to-hip ratios (WHRs), that is, more adipose is deposited on the hips and buttocks than on the waist. Research shows that women with high WHRs (whose bodies are more tube-shaped) are more likely to suffer from health maladies, including infertility and diabetes. However, as is often the case, there are exceptions to the rule.

Psychologists at Newcastle University in England have shown that an indigenous people located in southeast Peru, who have had little contact with the Western world, actually have a preference for high WHRs. These psychologists assert that a general preference for low WHRs is a byproduct of Western culture.

Beauty and choosing a mate

Psychological research suggests that people generally choose mates with a similar level of attractiveness. The evolutionary theory is that by mating with someone who has similar genes, one's own genes are conserved. Moreover, a person's demeanor and personality also influences how others perceive his or her beauty.

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In one study, 70% of college students deemed an instructor physically attractive when he acted in a friendly manner, while only 30% found him attractive when he was cold and distant. Indeed, when surveyed for attributes in selecting a mate, both males and females felt kindness and an exciting personality were more important in a mate than good looks. Thus, to a certain degree, beauty truly is in the eye of the beholder.

Douglas Yu of the University of East Anglia in Norwich, England, agrees. "It's true by definition. Beauty is always judged by the receiver," he says. At the same time, he says in an email "there is inter-observer concordance, a measure of objectivity," so that individual perceptions of beauty, factoring in other characteristics such as personality and intelligence, can often be aggregated to form a consensus opinion. One of the offshoots of Yu's work in ethnobiology was a piece in *Nature* in 1998 that showed that the hourglass-body standard of beauty in women, previously thought to be 'universally' preferred, was in fact likely swayed by advertising.

The halo effect

In society, attractive people tend to be more intelligent, better adjusted, and more popular. This is described as the halo effect - due to the perfection associated with angels. Research shows attractive people also have more occupational success and more dating experience than their unattractive counterparts. One theory behind this halo effect is that it is accurate -- attractive people are indeed more successful.

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An alternative explanation for attractive people achieving more in life is that we automatically categorize others before having an opportunity to evaluate their personalities, based on cultural stereotypes which say attractive people must be intrinsically good, and ugly people must be inherently bad. But Elliot Aronson, a social psychologist at Stanford University, believes self-fulfilling prophecies - in which a person's confident self-perception, further perpetuated by healthy feedback from others - may play a role in success as well. Aronson suggests, based on the self-fulfilling prophecy that people who feel they are attractive - though not necessarily rated as such - are just as successful as their counterparts who are judged to be good-looking.

Whatever the reason, the notion that attractiveness correlates with success still rings true. Yet beauty is not always advantageous, for beautiful people, particularly attractive women, tend to be perceived as more materialistic, snobbish, and vain.

For better or worse, the bottom line is that research shows beauty matters; it pervades society and affects how we choose loved ones. Thus, striving to appear attractive may not be such a vain endeavor after all. This isn't to say plastic surgery is necessarily the answer. Instead, lead a healthy lifestyle that will in turn make you a happier person.

Suggested Reading

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