



Q&A Karl Grammer

Innate attractions

Karl Grammer, professor of anthropology at the University of Vienna, has been a pioneer in human attraction and courtship research. He discusses what he and others have learned by studying human beauty from an evolutionary perspective.

Why do you believe that our perceptions of human beauty were shaped by evolution?

In all other animals, appearance plays a big part in mate selection and reproductive capability. I am a biologist, so I believe that this cannot be different for humans. Humans are obsessed with beauty. Beautiful children get less punishment than less-attractive children for the same misbehaviour. Even babies look more frequently at beautiful faces. When you find an obsession like this, there must be something deeper than a simple cultural norm. There are 3,000-year-old poems that talk about beauty and love — so this obsession goes through the whole history of mankind.

So you disagree with those who argue that standards of beauty are culture-bound?

Yes. People always say that beauty standards are generated, for instance, by fashion models. I do not think that is true. Models might have some influence, but only on a very small scale. Some argue that beauty is a myth — that “real beauty comes from inside”. This is completely untrue. Beauty provides reliable information about youth, fertility and health.

What is the evidence that human beauty is an indication of Darwinian sexual selection?

Beautiful people are healthier than less-attractive people — this has been shown repeatedly. We have shown that more-attractive women produce more offspring over a lifetime than do less-attractive women. Studies also find remarkable consistency in the facial and bodily features that people find beautiful — even across different cultures, races and ages. In one of our studies, people from South Africa and Austria judged the same Japanese women to be attractive. You would not expect this unless there was a biological basis behind beauty.

Which facial and bodily features are consistently judged as attractive?

We and others have identified eight pillars of beauty: youthfulness, symmetry, averageness, sex-hormone markers, body odour, motion, skin complexion and hair texture. I think this line of research is almost finished. It is no longer useful to just decide that something is more beautiful than something else. The signals of beauty have been identified. The next step is to try to work out what these signals

are for. For example, symmetry is thought to reflect stable development and parasite resistance, and body odour is thought to convey information about the immune system. But direct evidence for these connections is weak. Also, specific genes involved in determining attractiveness have yet to be pinpointed.

What do you consider your most important discovery?

We have shown that beauty signals are redundant — they tend to go together. If you have a nice face, your body odour smells good; if you smell good, you are more symmetrical; if you have a nice voice, you have a nice face; and so on. The whole body is one ornament; it is not just an array of independent signals. For us, this makes it highly likely that there is a biological basis. This also means that to uncover the connections between the cues and the underlying biology, researchers need to study multiple features simultaneously rather than one at a time.

If beauty standards are innate, why is there cultural variability?

We have to be able to adjust our beauty standards to the mean of the population we are living in, or we would run the risk of never finding a mate. The eight pillars of beauty are construction rules. As long as you adhere to the construction rules — such as averageness and symmetry — then the specific content can vary. Attractiveness has to be a flexible concept to increase the pool of potential mates.

With plastic surgery and cosmetics we can artificially manipulate beauty. Won't this remove, or at least reduce, the selection pressures on beauty?

For a long time in human history beauty was a non-falsifiable signal. Now it is falsifiable. We do not yet know the consequences of this because too little time has passed; we would need another 10 or 20 generations of plastic surgery to see the evolutionary effects. One thing that may make beauty harder to falsify is that the signals are redundant. So you might be able to change your facial symmetry, for instance, but not your body odour.

Has human-attraction research ever been considered objectionable?

Yes. You will not find many publications on body or facial appearance from the 1960s or 1970s. It was considered politically incorrect at that time to judge people on their appearance. When we started our work in the early 1990s, we did not worry about this. We were biologists, and we knew that symmetrical scorpion flies attract more mates than asymmetrical ones. We believed that what applies to the scorpion fly also applies to humans. And that is how the whole thing took off. ■

INTERVIEW BY KRISTIN LYNN SAINANI

This interview has been edited for length and clarity.