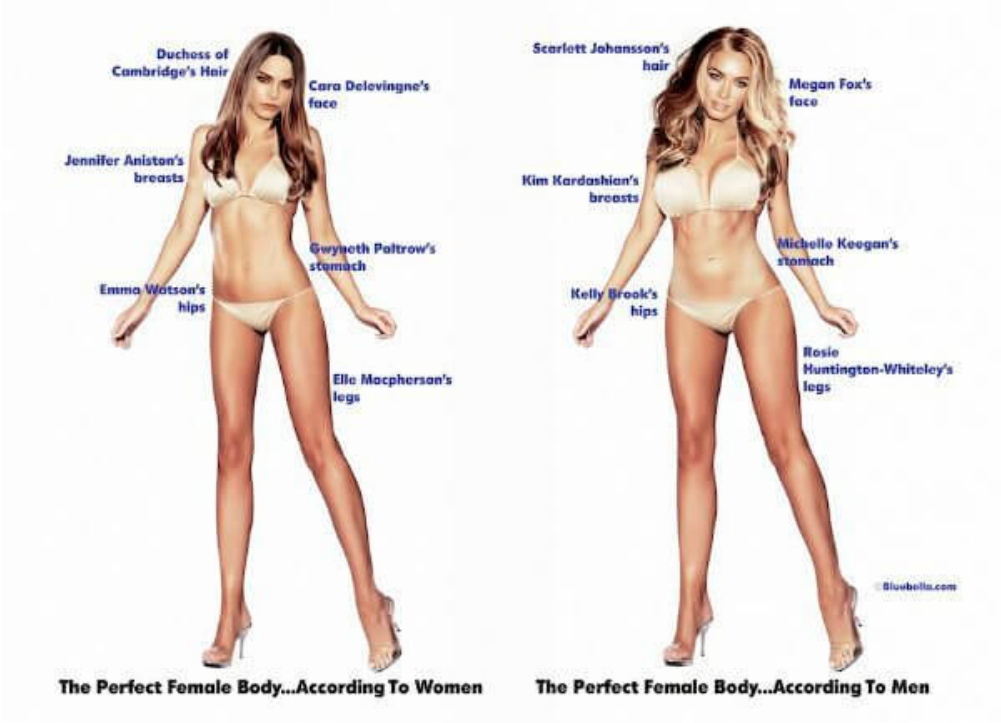
Why men like women’s curves: How big a role has evolution played?

“You may admire a girl’s curves on the first introduction, but the second meeting shows up new angles.” ~ Mae West

A curvy bottom, large, round breasts, long legs—in our society, it is common to think that these physical features make women attractive to men, because, scientists speculate, they visually communicated to men that these women were fertile—they could give birth and rearing of healthy babies. It seems logical, and in fact, based on studies by researchers in the fields of evolutionary psychology and sociobiology, evidence has been building steadily in support of the idea that sexual attraction is controlled mainly by factors hardwired into the brain, due to evolutionary forces. Our genes are programmed to perpetuate themselves, and thus, the sieve of natural selection has favored genes that encourage healthy pregnancy, successful breast feeding and a host of other factors that manifest in the body shape.



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But indeed, such theories, while logical and even compelling, are no more than high level speculation. While the evidence is mounting, it’s not conclusive yet. Our thinking is still influenced strongly by the ideas and sayings of a few high profile people who have pondered the issue over the years and are not convinced. So while the sociobiological, evolutionary hypothesis for sexual attraction continues to gain ground, the case is far from closed, and, as with many issues related to genes and behavior, continued study may reveal that the story is more complex than we once thought.

Mounting evidence for sociobiological causes

More than 20 years ago, in a famous scientific paper, Devendra Singh, the late evolutionary psychologist at the University of Texas, presented strong evidence that female shape plays a major role in making women attractive. Using measurement data from three decades worth (early 1960s to early 1990s) of Playboy playmates and Miss America winners, Singh found that endocrinological status, youthfulness, and good long-term health all relate to fat distribution as determined by the waist-to-hip ratio (WHR). Specifically, she found that good reproductive and general health correlate with a low WHR, and also that men from college age up to 85 years old all find low WHR women more attractive than women with higher WHR and see the women with high WHR as being more healthy and fertile.

In her research, Singh even was able to quantify her result. 70 percent was the magic number; women with a WHR of 0.7:1 (waist circumference is 70 percent of hip circumference) were the most attractive and healthy looking to men and the Miss Americas and Playboy models tended to have this ratio. This was in spite of changes in overall slenderness of the women in those roles over the three decade period.

And Singh's discovery has worked its way into our culture. Thus, *Cosmopolitan Magazine*'s advice to women: "Forget slapping on the makeup and styling your hair, because apparently a woman's attractiveness only relates to her body proportions." And now this video about the 0.7:1 WHR has gone viral on Youbute:

To be sure, not even all those studying attractiveness from an evolutionary standpoint agree on the importance of the WHR. Some researchers actually think that is has more to do with what's called the body mass index (BMI), the same index that clinicians use to determine whether a patient is of normal weight, underweight, overweight, or obese.

Finally, a study published in March of 2015, and from UT Austin, the same institution where Singh did her work, has revealed an association between a woman's physical attractiveness to men and a different index: the angle of the lumbar curvature. This refers to the forward curving part of the back, from the middle back to the buttocks, and the Texas researchers honed it down to an optimal optimal lumbar curvature angle: 45.5 degrees.

According to the research, this angle would have provided the best possible support for women in the Stone Age and early history to succeed in multiple pregnancies, despite no medical knowledge of the people those times. As with Singh's research, the current UT group used a strategy that involved showing men volunteers images of women with varying proportions. The idea is not that the lumbar curve ratio hypothesis should compete with the ideas about WHR and BMI. Rather it could dovetail with those other evolution-based ideas. In the words of UT psychology professor David Buss, one of the authors of the new study:

> What's fascinating about this research is that it is yet another scientific illustration of a close fit between a sex-differentiated feature of human morphology — in this case lumbar curvature — and an evolved standard of attractiveness…This adds to a growing body of evidence that

beauty is not entirely arbitrary, or ‘in the eyes of the beholder’ as many in mainstream social science believed, but rather has a coherent adaptive logic.

Phi of the beholder, or the eye of the beholder?

The idea of sexual attractiveness depending on measurements in the waist to thigh region, whether involving fat distribution, WHR, or lumbar curvature, is actually just a subtopic within a grander the theory that human attractiveness is based upon hard-wired universal templates. Generally, the universal templates in terms of ratios, or angles, and we see it applied to general, facial beauty connected with a ratio called the “Golden Ratio”, equalling approximately 1:1.618. It is based on what’s been called the “Golden Number”, 1.618, which is represented by the Greek letter ? (phi). Thus, proponents of the “golden ratio for facial beauty” hypothesis believe that the phi ratio can be seen in various parts of the face of the most beautiful people from ancient history to the current time. One example is the ratio of the distance between the eyes compared with the distance between the eyes and mouth, but many other phi ratios are worked out throughout the face.

The hypothesis gained popularity after publication of a University of Toronto study looking at facial measurements and beauty perception in 2009. Consequently, sometimes proponents say “Beauty is in the phi of the beholder,” playing on the expression “beauty is in the eye of the beholder, or in the words of English philosopher David Hume, “Beauty in things exists in the mind that contemplates them.”

Throughout modern history, Hume’s statement and the eye of the beholder quote have been used to counter the template or ratio hypotheses that are popular in psychology and evolutionary biology. Countering the proposition that there are universal templates of beauty is also hip in popular culture. Star Trek did, for instance, did it many times, as the first science fiction program to imagine extraterrestrial beings with forms very different from the human form, although that still doesn’t counter the idea that humans find particular humans attractive for evolutionary reasons.

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But the critics of evolutionary hypotheses for attractiveness of females is not limited people citing

variations of Hume's idea. Criticism actually has included people within biology and making major contributions to evolutionary think, including the late Stephen J. Gould. While evolution certainly is the glue that holds biology together—in fact, we couldn't have biology without it, and there's no way to understand biology except in an evolutionary context—things are not so concrete when we get into human psychology. Certainly, many elements of psychology evolved, since our brains are biological, and they of course evolved. But since the case for purely evolutionary explanations for why men find certain women attractive was not looking completely solid, Gould was critical of those who automatically extended evolutionary principles, such as Darwinian natural selection, to all aspects of human behavior. He even had a term for that: Darwinian fundamentalism.

That may be a little too strong, because, as noted earlier, the evidence for an evolutionary basis of at least sexual attraction is mounting. But the fact that Gould used the term fundamentalism should make any scientist cautious while moving forward. Using a similar level of caution, next time, we'll flip it around and explore possible evolutionary mechanisms underlying what makes men attractive to women.

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