Nothing can be more fleeting or capricious than fashion. What, then, can a scientist, committed to objective description and analysis, do with such a haphazardly moving target? In a classic approach, analogous to standard advice for preventing the spread of an evil agent ("kill it before it multiplies"), a scientist might say, "quantify before it disappears."

Francis Galton, Charles Darwin's charmingly eccentric and brilliant cousin, and a founder of the science of statistics, surely took this prescription to heart. He once decided to measure the geographic patterning of female beauty. He attached a piece of paper to a small wooden cross that he could carry, unobserved, in his pocket. He held the cross at one end in the palm of his hand and, with a needle secured between thumb and forefinger, made pinpricks on the three remaining projections (the two ends of the crossbar and the top).

He would rank every young woman he passed on the street into one of three categories -- as beautiful, average, or substandard (by his admittedly subjective preferences) -- and he would then place a pinprick for each woman into the designated domain of his cross. After a hard day's work, he tabulated the relative percentages by counting pinpricks. He concluded, to the dismay of Scotland, that beauty followed a simple trend from north to south, with the highest proportion of uglies in Aberdeen and the greatest frequency of lovelies in London.

Some fashions (tongue piercings, perhaps?) flower once and then disappear, hopefully forever. Others swing in and out of style, as if fastened to the end of a pendulum. Two foibles of human life strongly promote this oscillatory mode. First, our need to create order in a complex world begets our worst mental habit: dichotomy, or our tendency to reduce an intricate set of subtle shadings to a choice between two diametrically opposed alternatives (each with moral weight and therefore ripe for bombast and pontification, if not outright warfare): religion versus science, liberal versus conservative, plain versus fancy, Roll Over Beethoven versus the Moonlight Sonata. Second, many deep questions about our livelihoods, and the fates of nations, truly have no answers -- so we cycle the presumed alternatives of our dichotomies, one after the other, always hoping that, this time, we will find the nonexistent key.

Among oscillating fashions governed primarily by the swing of our social pendulum, no issue could be more prominent for an evolutionary biologist, or more central to a broad range of political questions, than genetic versus environmental sources of human abilities and behaviors. This issue has been falsely dichotomized for so many centuries that English even features a mellifluous linguistic contrast for the supposed alternatives: nature versus nurture.

As any thoughtful person understands, the framing of this question as an either- or dichotomy verges on...
the nonsensical. Both inheritance and upbringing matter in crucial ways. Moreover, an adult human being, built by interaction of these (and other) factors, cannot be disaggregated into separate components with attached percentages. It behooves us all to grasp why such common claims as "intelligence is 30 percent genetic and 70 percent environmental" have no sensible meaning at all and represent the same kind of error as the contention that all overt properties of water may be revealed by noting an underlying construction from two parts of one gas mixed with one part of another.

Nonetheless, a preference for either nature or nurture swings back and forth into fashion as political winds blow and as scientific breakthroughs grant transient prominence to one or another feature in a spectrum of vital influences. For example, a combination of political and scientific factors favored an emphasis upon environment in the years just following World War II: an understanding that Hitlerian horrors had been rationalized by claptrap genetic theories about inferior races; the domination of psychology by behaviorist theories. Today, genetic explanations are all the rage, fostered by a similar mixture of social and scientific influences: for example, the rightward shift of the political pendulum (and the cynical availability of "you can't change them, they're made that way" as a bogus argument for reducing expenditures on social programs) and an overextension to all behavioral variation of genuinely exciting results in identifying the genetic basis of specific diseases, both physical and mental.

Unfortunately, in the heat of immediate enthusiasm, we often mistake transient fashion for permanent enlightenment. Thus, many people assume that the current popularity of genetic explanation represents a final truth wrested from the clutches of benighted environmental determinists of previous generations. But the lessons of history suggest that the worm will soon turn again. Since both nature and nurture can teach us so much -- and since the fullness of our behavior -- and mentality represents such a complex and unbreakable combination of these and other factors -- a current emphasis on nature will no doubt yield to a future fascination with nurture as we move toward better understanding by lurching upward from one side to another in our quest to fulfill the Socratic injunction: know thyself.