Book Review


Sexual attraction, dating, love, sex, teen motherhood, marriage, infidelity, jealousy, sexual harassment and abuse, rape and divorce. These are examples of just some of the interactions between men and women that Nigel Barber claims have been hard-wired in our brains by evolution and that can be explained in the same way as reproductive behaviors in nonhuman species.

Because all of the behaviors that comprise these interactions can be modified by experience, Barber does not assert they are inevitable. In fact, he admits that they often result from a collision between our evolutionary past and our modern environment. But he does believe that understanding how similar behaviors contributed to the reproductive fitness of our human ancestors can clarify not only obvious male-female sex differences such as size and strength but also more subtle differences such as feelings of jealousy over marital infidelity.

Barber makes two general claims. The first is that there are numerous patterns of human behavior that are related to sexual reproduction. Some of the less controversial ones are greater promiscuity and marital infidelity in males than females. Some more dubious ones are the wearing of beards by men, which are said to be unconscious responses to variations in prevailing socio-economic conditions in order to communicate reproductive fitness, and the seven-year itch (the tendency of men to stray after several years of marriage), which is said to be driven by an unconscious drive to produce more young. Still other patterns such as road rage and school shootings by young males, which Barber interprets as risk-taking displays meant to increase their social status among males and attractiveness to females, seem more implausible.

The second claim is that evolutionary psychology can scientifically explain these and other patterns parsimoniously.

Such sweeping claims must be backed by solid proof. What Barber offers are several types of converging evidence ranging from solid experimental research with nonhumans to research with humans based on less reliable self-report and anecdotal data. He occasionally includes neurophysiological research to buttress the weak human data, but not enough to warrant the subtitle of the book, Secrets of the Sexual Brain. Besides, as some authors have pointed out, investigators have yet to demonstrate the existence of any specific evolved mechanisms in the distinctly human areas of the human brain (e.g., the neocortex) (Panksepp & Panksepp, 2000). Where there are few or no data Barber relies on a logical analysis of casual observations. There are, however, several problems with both of Barber's general claims.

The biggest problem with identifying reproductive patterns in human behavior is the high degree of variability within and across populations. Unlike most other species whose reproductive behaviors consist of fixed-action patterns (relatively stereotyped within-species patterns of behavior elicited by complex arrangements of stimuli), human behaviors are much more variable within social contexts, historically in societies, and across cultures. Such variability suggests that the great contribution of evolution to human nature was not genetically dictated
behavior patterns, but a nervous system with a tremendous capacity for learning. In humans, the role of genes is muted by the educational role of the environment. Even when certain patterns such as the greater incidence of rape in men than women seem to hold, it is still important to point out that the majority of men do not rape women and that some women do rape men.

Of course, stereotypy is often in the eye of the beholder. Where some might see variability, Barber sees patterns. In fact, he writes that “the great advantage of assessing social change in light of evolutionary adaptations is that we can detect patterns that were previously unnoticed” (p. 16). In some cases the behavioral patterns Barber identifies seem convincing enough, for example, that men more than women engage in sexual harassment or rape. But in other cases his claims are less persuasive as, for example, when he suggests that men and women may have different motives in marriage (for women it is providing a good home for children and for men it is maximizing the number of children), or that the seven-year itch in some marriages is analogous to the breeding season of certain bird species in which, if offspring are not produced, the individuals move on to other, reproductively viable mates. The latter is an example of the type of “just-so story” that plagues much of evolutionary psychology (Schlinger, 1996a).

But even if consistent patterns of behavior can be demonstrated, the question is what best explains them. Barber asserts that evolutionary psychology can provide a single unifying explanation. He writes that evolutionary psychology can account for similarities and differences between societies as well as historical changes within a particular society, such as standards of attractiveness. For Barber, such standards, which are always reactions to social conditions, such as the availability of mates, “vary in ways that help people to survive and reproduce in their specific social context” (p. 14). In fact, a constant theme throughout the book is the co-variation between economic conditions, including whether women enter the work force, the availability of marriageable males, and women’s body shape and fashions.

Consider Barber’s example of whether men consider curvaceousness (plumpness) or slenderness in women to be attractive. According to his reasoning, curvaceous women are considered attractive in societies where women have little social power and are valued mainly for their fertility. He argues this was the case, not only in subsistence societies, but also in modern society. For example, in the 1950s because there was a sudden availability of a large number of single, marriageable men and economic prospects in the United States improved, women turned away from the workforce and settled down to marry and raise children. The unconscious evolutionary response of American women to these societal changes was to become “moderately voluptuous,” as represented by actresses such as Jane Russell and Marilyn Monroe. At the same time the hemlines of skirts lengthened because, according to Barber, “ordinary women wanted to convey a message of sexual reserve that appeals to potential husbands” (p. 15).

For Barber these phenomena can be explained “in terms of a relatively simple theory that relates evolved bodily signals and evolved relations between men and women to changes in the marriage prospect of each sex” (p. 16). Barber argues that men actually prefer curvaceous women to slender women because: “In the evolutionary past, men who selected brides with highly curvaceous bodies would have enjoyed a reproductive advantage. Their wives would have conceived more quickly and would have had better health to raise their offspring to maturity” (p. 242).

Barber is an effective writer and, therefore, he makes a compelling case. But as a skeptic, I found myself asking whether so much of human behavior reflects
motivations whose origin can be traced to sexual selection in our evolutionary history? Could all the behaviors between males and females that Barber discusses, even changing fashions and whether men wear beards, be explained in terms of adaptive responses to sexual selection? Are there no simpler explanations? These questions hint at some of the problems with Barber’s interpretation in particular and the general explanatory power of evolutionary psychology.

First, any theory that claims to explain so much should be eyed with caution. Second, and more important, the explanations stemming from evolutionary psychology are not necessarily the most parsimonious ones for many of the behaviors in question (Schlinger, 1996b). Because nature (evolution) and nurture (learning) can both produce similar phenotypes (behaviors), it is often impossible to discern which is more influential in a given instance. For example, when a woman dresses in a particular fashion, is it an evolutionary response to economic conditions and the relative number of marriageable men or does it depend more on the influence of current trends she sees in magazines and on television and family and friends who reinforce buying and wearing those clothes?

A third problem is Barber’s appeal to the adaptive significance of so many behaviors, including those not obviously related to romance, such as school shootings and road rage, mostly by young males and anorexia in young females. Some evolutionary biologists have urged caution in the unconstrained use of “the onerous concept of adaptation” and have noted that the adaptive value of a given trait must be demonstrated rather than logically assumed (Futuyama, 1986). Others have pointed out that all examples of behaviors that benefit individuals in the modern world are not necessarily products of evolution (Bateson, 2002). This is because numerous other factors can influence the evolution of a trait (Futuyama, 1986). Because of this, we must be especially careful when speculating about a trait’s adaptive functions.

I am much more sympathetic to Barber’s position when he appeals to the more indirect role of evolution as he does in a surprisingly refreshing chapter called “Learning to Love,” in which he argues the “seemingly unexceptional view” that the intimacy (or lack thereof) found in sexual relationships is learned in childhood from parents who are a child’s primary socialization agents. In this instance, Barber seems to agree that evolution has selected for a nervous system that, especially in young children, is highly susceptible to learning experiences. To his credit, Barber cites the behavior analyst Gerald Patterson in describing how behavior disorders in children may be learned and, conversely, successfully treated through techniques of operant learning. More importantly, and conspicuously contrary to the suggestion by some (e.g., Harris, 1995; Pinker, 2002), he discusses at length the role of early operant and social learning in cognitive, social, and emotional development as reflected in the important work of Betty Hart and Todd Risley (see Hart & Risley, 1995).

Nigel Barber’s book continues the debate about the respective roles of nature and nurture in human behavior. Although most psychologists now accept a reciprocal role, it is not an equal one. And for a given phenotypic trait, whether structural or behavioral, the question is to what extent each contributes. Although it is likely that some human behaviors are more influenced by our shared evolutionary history, probably the biggest influence of that history is on a nervous system that is highly sensitive to learning experiences.

Yet it must be admitted that we humans are part of the animal kingdom, and like other animals, our behavior is partly shaped by our evolutionary history. Barber, in his well-written, interesting, entertaining, and thought-provoking book, certainly makes us think about the possibilities.
References


(Harry Schlinger, California State University, Northridge)