

Editorial

Sex and Society: The Journal Takes a Look at Their Interaction

There are two broad categories of research on humans: one is strictly “biological” and is characterized as “hard science” by those who engage in it. Biological research is concerned with the physiologic characteristics of the organism, and when it does attempt to integrate the impact of environment on the data, it necessarily does so in a limited fashion. The other general group of investigators considers society’s impact on the human phenotype; biologists often (and inappropriately) dismiss the product of these allied disciplines as “soft” science. The division between the two camps has been apparent at our own conferences on gender-specific medicine: the anthropologists and sociologists complain not only that we don’t invite their collaboration or integrate their data with our own, but also that we have less regard for their expertise and methodology than for our own, which we believe is based on firmer ground than any other.

Nothing is more evident in clinical medicine than the complex and interactive relationship between human biology and the environment in which individuals find themselves. The immune system is weakened by depression, the healthy human heart can fail acutely in response to an emotional challenge, and the relationships we have with other living things affect our susceptibility to disease and the length of our lives. Everything we experience has an impact on our biology. Defining, describing, and monitoring the intricate dance between physiology and social experience is the essence of the challenge that faces anyone genuinely interested in understanding the human condition.

Traditional research of all kinds has utilized only one set of skills in investigating differences between men and women, and has not grappled with the extraordinarily difficult and most important task of teasing out which characteristics of the organism are hardwired as a result of biological sex and which are the consequence of social forces and environment. Nobel laureate Eric Kandel’s work is a stunning testament to the fact that what happens to us changes the very structure and molecular behavior of our brain; “hardwired” becomes an elusive and almost impossible-to-define adjective.¹

The human phenotype inevitably depends on the interaction of the individual with the environment. Determining what is the result of innate, immutable, and sex-specific characteristics, and what is the result of what happens to and around us, is the most difficult and perhaps never perfectly solved issue in gender-specific medicine. All the disciplines that study the human condition must collaborate if we are to generate the most accurate insights into how we function and how we become who and what we are.

In our journal’s effort to report studies that involve the sciences with which we should be closely collaborating, we have inaugurated a new section, *Society, Culture, and Health*, devoted to investigations examining the societal impact on human behavior. Our first two papers for this new section are very different: “Whack! I’ve Hit the Glass Ceiling! Women’s Efforts to Gain Status in Surgery” focuses on the position of women in a traditionally male field, and how it affects their performance and their attitude toward colleagues and, inevitably, patients.² As more and more women join the workforce at all levels, it has become meaningful to track and report the history of women’s impact on the fields in which they now function. There is no question that women and men have different approaches to the same challenges—new intriguing and compelling data indicate that the brains of the two sexes are different in anatomy, chemistry, metabolism, and function. We experience, interpret, and respond to the world around us in sex-specific ways, and how we pursue our careers reflects these differences. This report notes, for example, that many professional women are delaying or skipping motherhood; I believe that research on postponing menopause will be a priority as a consequence. We have been designing means to harvest, preserve, and store unfertilized ova of women. Women are living longer, better, and more productive lives, and they want to escape the pressure of the relatively narrow window biology provides for their having children. Biologists are already taking the first

steps in the search for a solution: for example, Reddy and colleagues have recently described the pathway that controls the molecular mechanism of follicle activation in mammals.³

The second paper we have included in our new section, “Gender Imbalance in Kidney Transplantation: Iran in a Global Perspective,” reports on the sex of kidney donors and recipients in Iran. This work is of unusual interest because it observes that Iran is the only country in the world in which women are more likely to be kidney recipients than to be donors.⁴ The author speculates on the reasons for this disparity in light of, as is the case worldwide, the higher incidence of end-stage renal disease in Iranian men. There is no clear answer to this epidemiologic enigma, although the author does comment that “the difference mostly comes from the religious and cultural backgrounds of this country.” Essentially, the observation is worth noting, and it challenges us to understand the motives contributing to this unique Iranian experience. Interestingly, this might require the collaboration of religious experts, anthropologists, and psychologists, among others.

Gender Medicine invites a wide spectrum of disciplines, from anthropology to sociology, to report studies focusing on the impact of environment on the human phenotype. By inaugurating the new Society, Culture, and Health section in our journal, we intend to emphasize the importance of recruiting skilled researchers to collaborate on gender-specific investigation. Consider that when the National Institutes of Health brought several disciplines together in their Program Project grants to investigate biological phenomena, the outcome was richer and more accurate than when only one point of view examined a biological problem. Critics might say we are diluting *Gender Medicine's* content and that we should leave the allied disciplines to other journals—we disagree. We are issuing a request for papers that integrate biological observations with those from ancillary disciplines. If we are truly involved in how humans function, we cannot limit ourselves to biological reports that do not consider the impact of the world around us on that biology. As it turns out, experience and the environments that produce it do have an impact on function. Understanding how this happens will undoubtedly benefit the prevention and treatment of disease.

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