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Anne Fausto-Sterling's Myths of Gender: Biological Theories about Men and Women
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by Ingerlene Voosen Embry,
University of Kansas

> Male and female babies may be born. But those complex, gender-loaded individuals we call men and women are produced. (270)

Anne Fausto-Sterling's Myths of Gender: Biological Theories about Women and Men addresses the question of whether or not male and female difference is scientifically proven, through detailed examination of "scientific" studies which purport to answer such a riddle. Her research is grounded is the following beliefs: that biology, society and individuality should not (and cannot) be studied as distinct phenomena (one claiming a necessarily more potent causality)(7-8; 152-3, ex.); that the scientific process and scientists themselves are social and political beings (9) (i.e. therefore an objective project is impossible, 207); that past scientific models may need alteration in questions asked, methods employed and interpretations pursued (11, 208); and lastly, that it is politically urgent to engage in the project of re-working science (195, ex.).

Fausto-Sterling's method is one of contextualization (historically, politically and socially), combined with a careful look at the strongest "evidence" provided for each case purporting to prove the existence of sex-related differences. She tackles such questions as gender-based differences in intellect, difference due to genes and/or hormones, as well as difference based in evolution. Throughout each example, the author is careful to engage non-scientist readers and thereby include them in this debate. For instance, she highlights the role of popular media in promoting ideas of biologically rooted gender difference (and the lack of follow-up when such studies are disproven, 269, ex.). Also, her critique of each study is accompanied by careful explanations of basic biological principles and scientific terminology (19, ex.).

When examining the "scientific" studies, Fausto-Sterling not only considers the reliability of methods used, but also looks for assumptions underlying the questions asked and the interpretations offered (81&85, examples). In order to do the latter, the author provides alternate questions and alternate interpretations, turning the purportedly "objective" studies on their heads (50&52, examples). Then, rather than leaving the pieces on the table, so to speak, the author offers hope for change by re-formulating previous assumptions (220-222) and providing examples of new studies which have taken a turn toward less sexist and determinist scientific study (108-110, examples).

Her examination of the actual "evidence" supporting these studies reveals inconsequential results, overly small sample sizes, non-repeatable methods, and insignificant statistical differences. The pithy amount of "hard" evidence supporting the studies is truly alarming, considering their wide-spread influence. Thus, Fausto-Sterling's conclusions point to limited (mostly inconclusive) amount of empirically proven evidence of "biologically-based" sex differences (153, ex.), an emphasis on and tenacity

of shoddy science's results when reinforced by stereotyped gender assumptions (as well as when connected to social programs, 221), and a clear understanding of what is at stake, politically and socially, when we rely upon biologically based explanations (i.e. immutable inequality) (206).

One of the most important messages of this text is Fausto-Sterling's assertion that, due to the complexity of biological and environmental stimuli in the constitution of human beings, scientists' questions, interpretations, and choice of what to highlight in their results is politically charged and laced with serious social consequences. Therefore, she argues, it is imperative that scientists acknowledge their own politics (12), continue to strive for "good science" and are very careful about the application and interpretation of their results. Not only does Fausto-Sterling make these requests of the scientific community, but makes requests of society as a whole, as well: Since science is politically and socially influenced, broad social change (in the direction of egalitarianism) is urgently needed (270, 120, ex.).

I see little in Fausto-Sterling's work to critique. Based on the goals she states for her work and the evidence she examines, she successfully demonstrates the need for much, much more research to be accomplished before any conclusive statements can be made about gender and sex differences. By demonstrating the impossibility of extracting the social from the biological, the author convincingly (if frustratingly) notes the impossibility of delineating definitive gender or sex difference. In comparison with the other works on gender differences to which I have been exposed, this work is truly a breath of fresh air. Rather than denying biology as a factor, the demonstration of its limited effects without many other influences intricately involved, allows both my materialist and my post-structuralist instincts to co-exist.

However, this being said, due to my exposure to feminist theory, I am left with some fundamental questions: If something cannot be scientifically "proven," does Fausto-Sterling believe it can exist? Granted, she states that science cannot be infinitely "objective," that its process of validating truths is only possible within presumptions of a particular perspective, and that it has inherent uncertainties (212). Yet, her belief that science can exclude some areas of uncertainty through systematic investigation seems to contradict, or at least put a limit on those critiques of scientific investigation. Further, the only (material) beliefs Fausto-Sterling states with any certainty are those that have been proven to her (scientific) satisfaction (214, ex.) Thus, my question bubbles to the surface - can non-scientifically proven material reality exist for the author?

Also, by acknowledging some difference (e.g. in reproductive systems and organs), what does that bode for the persistence of cultural difference? Fausto-Sterling suspects that even if cultural differences (for example in the amount of free movement as children) were elided, some physical differences between the sexes would remain (for example in height, 216). Does this imply an underlying belief in some (albeit limited) causal powers inherent to and exclusive of culture in biology?

Lastly, perhaps due to my own reading abilities, I leave this book wishing for a better idea of Fausto-Sterling's definitions of "sex" and "gender". In the opening quote to my essay, the author seems to be differentiating between girl babies and boy babies (sex?) and the men and women (gender?) are produced. However, by complicating our understanding of the degree of difference between the "sexes," wouldn't she also argue, to some degree that girl and boy babies are also produced (recall the extreme examples of women with hormone injections whose babies began as one sex and changed to

another, 78)? A more explicit definition of her terms would have aided my understanding of her work.