



01 October 2010

Book of the Week: Delusions of Gender: The Real Science Behind Sex Differences

30 September 2010

A cutting critique of the sexism of neuroscience - the phrenology du jour - made Hilary Rose chuckle in agreement

The part played by the life sciences in justifying the subordination of women has an embarrassingly long history. Aristotle, despite his sharp insights into human biology, was an early pioneer in naturalising women's physical and intellectual inferiority.

Some 2,000 years later, Charles Darwin, whose bicentenary was so enthusiastically and largely uncritically celebrated last year, was quite clear that sexual selection led to the evolution of men but not women. His claim was challenged in his lifetime by American feminist Antoinette Blackwell Brown, but it took a further two centuries before there were enough feminists trained as biologists to return to the challenge. Darwin's cousin Francis Galton, the biometrician and eugenicist, was also certain that genius descended down the male line, leaving women as the empty vessels through which it flowed.

More recently, sociobiologist Edward Wilson, while claiming the evolutionary inferiority of women, conceded that a more gender-equal society might be achievable, but only at the expense of less "efficiency".

While there has been an equally long and shameful history of scientific racism, it is possible to hope that this narrative has at last been ended. Thus, when Nobel prizewinner James Watson not so long ago delivered himself, very publicly, of the opinion that Africans are naturally intellectually inferior, the tolerance that was habitually extended to his more outrageous remarks (such as the observation that the best place for a feminist is in someone else's lab) abruptly ceased. His lectures in Britain were cancelled and he was removed from the presidency of the prestigious Cold Spring Harbor Laboratory. Even his defence that he was talking outside his expertise was not enough: the biological elite was no longer willing to tolerate scientific racism. When economist Larry Summers, president of Harvard University, resigned over his endorsement of scientific sexism, this looked like a similar milestone. But the difference was that the life sciences, not least the work produced by his Harvard colleagues, could and did continue to produce scientific sexism.

Biological determinism shares in the changing narrative of the life sciences. For feminists, this means that every generation has to take on a fight that is both old and new. Throughout the 20th century, genetics and evolutionary theory were unquestionably the dominant, but not the only, disciplines employed to explain the inevitability of the superiority of whites, the middle classes and men. From the mid-1920s, hormonal studies began to help shore up patriarchy with highly dichotomised concepts of the functions of testosterone and oestrogen, claimed as both markers and determinants of masculinity and femininity. As the scientific understanding of hormones became more complex, the crass appeal to the raging hormones of menstruation that supposedly made women too unstable to do intellectually demanding work became less viable. But although hormonal explanations in the neurosciences may have become more sophisticated, they have by no means entirely retreated.

Confronted with the rampant sexism of sociobiology in the 1970s and 1980s, a generation of feminist biologists and psychologists - Ruth Bleier, Ruth Hubbard, Ethel Tobach, Anne Fausto-Sterling and others - moved to contest the weak research methods, faulty arguments and spurious conclusions of Wilson and others of that ilk. But for anyone who has ever tried wallpapering, there is an analogy with combating biological sexism. The just-hung piece looks perfect and then you spot a bubble, which disappears with careful pressing. The critic stands back to admire her achievement, and sees another damn bubble. So it goes with sexist biology.

The latest bubble in the wallpaper is huge, richly financed and all the rage in the scientific and media communities. Now is the time of the neurosciences - a far cry from the weighing of brains, measuring of heads and feeling of bumps that characterised earlier attempts to justify women's inferior intellectual capacities.

With *Delusions of Gender*, we welcome a brilliant feminist critic of the neurosciences. Australian cognitive psychologist Cordelia Fine writes with bravura. She takes no hostages. She rejoices in demystifying the compellingly seductive false colour images provided by the MRI scanners - those windows into the brain - that seem remarkably like a new internal phrenology. Too often, such images have been recruited to dress the old sexism in new designer clothes.

In a book that sparkles with wit, which is easy to read but underpinned by substantial scholarship and a formidable 100-page bibliography, she attacks the ready generalisations on sexual differences made by neuroscientists and their media exegetes. What routinely characterises such claims is their naive collapsing of gender - which above all is a statement of relationships between men and women in a given society - into a "hardwired" statement about sex differences in brain structures encoded during foetal and early child development.

For example, Fine subjects University of Cambridge psychologist and popular author Simon Baron-Cohen's claims to have identified the "essential difference" between male and female brains - and hence men and women's minds and relationships - to devastating methodological criticism. Baron-Cohen derives this "essential difference" from responses to a questionnaire, on the basis of which he calculates an "Empathy Quotient" (a female marker) and a "Systematising Quotient" (obviously male). Questions include agreeing or disagreeing with statements such as "I really enjoy caring for people" versus "When I read the newspapers, I'm drawn to tables of information such as football league scores or stock market indices."

To suggest that responses to these ill-defined and socially biased questions help indicate brain sex is deeply unconvincing. For instance, which people are we talking about caring for? I can be profoundly uncaring about illegal warmongers, religious fundamentalists and human-rights abusers. Similarly, while I know that football has become fashionable among middle-class men and more and more women, it was in the past a working-class male passion. And let's not think about rugby, even though it is a fair bet that this was the game for a significant section of the current Cabinet. For that matter, reading stock-market reports is something of a class issue, and is unlikely to be of significance to the growing number of women and men thrown out of work as a result of bankers' greed. Fine's deconstruction of Baron-Cohen's methodology is a joy and, unusually for an academic book, it had me chuckling as I read it.

However, as a sociologist of science, I have a problem with the book's subtitle, particularly the words "real science". Now, I think I know what is meant by real ale - that is, one that is produced by less rather than more industrial procedures. But real science? This suggests a platonic ideal - the notion that somewhere behind the masculinist delusions of the neuroscientists there lies the possibility of an objective, value-free account of men and women's minds.

Yet the past 30 years of both mainstream and feminist social studies of science have laid siege to this possibility. Science does not possess the "eye of God" outside and above human culture. Against that reference to "real science", every page of Fine's brilliant, spiky book reminds us that science is part of culture and that the struggle against sexism in the neurosciences and the struggle against sexism in society are intimately linked. Read her, enjoy and learn.

THE AUTHOR

Cordelia Fine is an academic psychologist and writer. She is senior research associate at the Centre for Agency, Values and Ethics at Macquarie University and an honorary research Fellow in the department of psychological sciences at the University of Melbourne.

Fine studied experimental psychology at the University of Oxford, followed by an MPhil in criminology at the University of Cambridge. She was awarded her PhD from University College London, where she studied psychology. She moved to Australia to take up the position of research associate at Monash University, and then worked at the Australian National University.

Fine says that her hobbies are limited to reading in the bath, but that this may not be the case for long: "I have a good and long-held intention to also take up a slightly more active hobby."

Delusions of Gender: The Real Science Behind Sex Differences

By Cordelia Fine

Icon Books, 368pp, £14.99

ISBN 9781848311633

Published 2 September 2010

Reviewer :

Hilary Rose is visiting professor of sociology, BIOS, London School of Economics. She is author of *Love, Power and Knowledge: Towards a Feminist Transformation of the Sciences* (1994) and co-editor of *Alas, Poor Darwin: Arguments Against Evolutionary Psychology* (2000).

Readers' comments

- **dave** 30 September, 2010

Bit of a shot in the foot at the end there, isn't it? If you deconstruct the idea of 'real science', how will you tell it from the pseudo- kind, except by personal preference? It's good to think that your personal preferences will win out, but if they don't, and you have no grounding of what 'real' science might be to fight back from, you're stuffed, aren't you?

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