

Title page

**Evolution, language and the battle of the sexes: a feminist linguist encounters
evolutionary psychology**

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Abstract

This paper argues that the power of evolutionary psychology, and the challenge it poses for feminists, resides less in any new scientific knowledge evolutionary psychology has produced, and more in the meta-narrative it has provided for scientists whose work is not directly concerned with evolution. Using the study of sex/gender differences in language as a case study, the paper shows how evolutionary psychology's meta-narrative has been taken up in both expert and popular scientific discourse. It considers what gives the meta-narrative its appeal, and how feminists have contested it. It also locates the argument within the longer history of feminist responses to evolutionary science, comparing current debates with those that took place in the late 19th century.

Keywords

Evolutionary psychology; feminism; gender; language; meta-narrative; sex-differences

I first encountered evolutionary psychology (EP) in the mid-1990s, when I was put on the mailing list of the Darwin Seminar, which was based at the London School of Economics. The name made it sound like a history of science study group, but its literature was all about EP. It spread the word not only within the academy, but also to influential people outside it: in 1996, the centre-left think tank Demos, a favourite with the up-and-coming New Labour party, devoted a whole issue of its house magazine to the Seminar's ideas and their implications for social policy (Demos 1996).

The Seminar was run by Helena Cronin, a self-described feminist who nevertheless rejected the key feminist distinction between biological sex and socially constructed gender. All feminists accept there are consequential physical differences between the sexes (for a short but nuanced account of what that means and what does or does not follow from it, see Fausto-Sterling 2014), but EP maintains they are also innately different in their ways of thinking, feeling and behaving. Or as Cronin put it in an opinion piece she wrote for the socialist magazine *Red Pepper*: 'evolution made men's and women's minds as unlike as it made their bodies' (Cronin 2001).

It seems significant that this piece was written for a socialist publication. People on the Left needed to be persuaded that EP's stance on sex-differences was not inherently a conservative position. Cronin argued that on the contrary, it offered a starting point for a new kind of feminism, which was preferable to the old one because it did not depend on the politically correct but (in her view) scientifically questionable dogma of social constructionism. A few years later this argument would become familiar to a much larger audience through books like Steven Pinker's *The Blank Slate* (2002) and Simon Baron-Cohen's *The Essential Difference* (2003)—texts written by liberal men, which endorsed feminist goals so long as they did not require a commitment to the proposition that all or most male-female differences were socially constructed.

This kind of rhetoric was part of a broader effort to align EP with a liberal rather than a right-wing political agenda. Previous iterations of social Darwinism were generally regarded as reactionary: racist, anti-working class, associated with horrors like the early 20th century eugenics movement and the Nazi genocide. For liberals like Cronin and Pinker, it was important to make the point that EP was different. And in some ways it was and is: it does not share the old obsessions about race and class, for

instance. But when it comes to sex, EP is closer to the spirit of earlier Darwinian narratives—including the one found in Darwin’s own writing.

Charles Darwin’s views on many subjects were progressive by the standards of his time. Most notably, he opposed the enslavement of Africans and did not believe in the natural superiority of white Europeans to other races. But he was more inclined to believe in the natural inferiority of women. His major work on human evolution, *The Descent of Man, and Selection by Sex*, includes this passage (Darwin in Secord 2008: 304):

The chief distinction in the intellectual powers of the two sexes is shewn by man attaining to a higher eminence, in whatever he takes up, than woman can attain—whether requiring deep thought, reason or imagination, or merely the use of the senses and hands. If two lists were made of the most eminent men and women in poetry, painting, sculpture, music . . . history, science and philosophy . . . the two lists would not bear comparison. . . . If men are capable of decided eminence over women in many subjects the average standard of mental power in man must be above that of woman. [. . .] It is, indeed, fortunate that the law of the equal transmission of characters to both sexes has commonly prevailed throughout the whole class of mammals; otherwise it is probable that man would have become as superior in mental endowment to woman, as the peacock is in ornamental plumage to the peahen.

The late 19th century was a period of significant feminist activity, centred on issues like women’s property rights, their access to higher education and the professions, and of course the right to vote. These causes required feminists to counter the prevailing view that women were unfitted by nature for certain roles and responsibilities. On that basis you might expect them to have rejected Darwin’s ideas. But in fact, many feminists were enthusiastic supporters. What they seized on was the basic point that every species develops through a continuous process of change and adaptation to environmental conditions. This was more in tune with the aspirations of feminism than the alternative, Christian view that our natures were ordained by God. Darwin’s statements about women in *The Descent of Man* were a disappointment, but there was an obvious way to get around them—by arguing that on this particular

subject Darwin had allowed his prejudices to trump the logic of his own argument. In 1875, the American suffragist Antoinette Brown Blackwell wrote that ‘Mr Darwin has failed to hold definitely before his mind the principle that the difference of sex, whatever it may consist in, must itself be subject to natural selection and to evolution’ (Blackwell 1875: 16).

For Blackwell and other supporters of women’s rights, it seemed obvious that women’s intellectual development had been restricted by social conditions, and that evolutionary theory provided an argument for social change. If women were educated to the same level as men, and allowed to participate in a similar range of activities, they would adapt to new demands just as men had done. As the English writer Mona Caird pointed out in an essay written in 1894, no one would suggest that a man’s occupation was ordained from birth by his innate characteristics. ‘We should only laugh’, she wrote,

at anyone who urged that...a sailor had been from birth incapable of understanding a legal document; that had he chosen the barrister’s profession instead of his own he would, to the end of his days, have betrayed an ineradicable tendency to run up masts and dance the hornpipe (Caird 1894 in Heilmann 1998: 206).

Caird also pointed out a more general flaw in discourse on the mental capacities and social roles of women. It invariably started from the assumption, as she put it, that

the whole race of women has been specially created in order to occupy precisely the position that which they occupy at this era, with precisely the amount of freedom now accorded, neither more nor less; for the happy moment has apparently arrived when matters have reached perfection (207).

This observation from 120 years ago is a useful starting point for feminists reflecting on EP in the 21st century. The content of the discourse has changed, but its political function has not. If you read *The Blank Slate*, *The Essential Difference*, or any number of other popular science books which make use of EP, the message is the same: ‘we’ve got rid of the gross injustices of the past and a good thing too, but whatever inequalities remain between men and women are never going to be eradicated, because they are the consequences of evolved differences that are part of our nature as a species’.

Why do I make reference to popular science books written by experts on something else—language in Pinker’s case and autism in Baron-Cohen’s—rather than

examples of the scientific work done by actual evolutionary psychologists? The answer, which is a central part of my argument here, is that EP's significance in contemporary debates on sex and gender is not primarily to do with the basic science produced by evolutionary psychologists. Its influence has more to do with the way its story about the prehistoric origins of human nature has been taken up by other scientists as a meta-narrative—a larger framework into which research findings on male-female differences can be slotted, whether their immediate subject is the differing behaviour of men and women in shopping malls or their differing rates of involvement in violent crime.

In some cases, the use of EP is not particularly well-motivated by the original research question (it is not self-evident, for instance, that patterns of shopping behaviour in present-day consumer cultures have a biological basis, or a direct relationship to the practices of early human hunter-gatherers). In other cases, however, such as research on the human brain and human cognition, there is a more obvious reason to reach for an evolutionary meta-narrative. The phenomena being investigated clearly do have a biological basis, and are therefore axiomatically products of natural selection. EP's meta-narrative of the way selection pressures acted on male and female early humans has a particular appeal for scientists investigating sex-differences in brain organization, or in areas of cognition and behaviour that might be linked to it. And one of those areas falls within the remit of my own specialist field, the study of language and gender.

When I first encountered EP via the Darwin Seminar in the mid-1990s, it was relevant to me as a feminist, but it did not impinge directly on my academic work as a linguist. But by the end of the decade that had changed. EP had not influenced the way I and other feminist sociolinguists thought about language and gender, but it had become ubiquitous in every other kind of writing on the subject. It was there in academic work on language evolution, language and the brain, language processing, language learning and language impairment. It was there in neuro- and cognitive science done by nonlinguists. It was also there in popular bestsellers about sex-differences. These books were not about language specifically, but language featured prominently in their account of 'hard-wired' sex-differences. Students in my lectures and classes had always arrived with various folk-beliefs about language and gender, but increasingly it was clear they were getting them from the new genre of popular science with an EP meta-

narrative. It was clear I could not just ignore this set of ideas, but would have to engage with it critically.

Before I continue, I should point out that what we actually know, or ever can know, about the origin and nature of language-use among early humans is extremely limited. Fossilized skeletal remains can tell us something about when humans became physically capable of articulate speech, and preserved artefacts like cave paintings can offer insights into their capacity for symbolisation, but language itself leaves no trace in the archaeological record until the invention of writing. We do not know what languages our earliest ancestors spoke, nor how they used them. So language is an area in which EP is forced to rely heavily on a strategy for which it has often been criticized: taking observations about the behaviour of modern humans and projecting them back into pre-history to construct a story about why the characteristics underlying the behaviour would have been selected for. In general this means arguing that they were conducive to reproductive success: individuals who had certain characteristics would have produced more offspring than those who did not, and eventually by the logic of natural selection the characteristics would have become part of the blueprint for the whole species.

The capacity for language clearly is part of the biological blueprint for our species, and it has always been a serious question why it conferred enough of an advantage to be selected for. Its advantages might seem self-evident, but that is only the case if the costs are not considered. Language is a major reason why humans need very large brains, which require large amounts of energy, and make the development of human infants after birth a much lengthier business than it is in other primates. Before the rise of EP, one popular theory was that language was advantageous because it allowed humans to share information and so co-ordinate group activities like hunting and fighting. (These are also assumed to have been male activities, so this theory presented men as prime movers in the evolution of language.) But since the advent of EP, two other theories have taken over.

The first theory is associated particularly with the evolutionary psychologist Robin Dunbar (1996), who proposes that language advantaged humans by giving them a more efficient means of managing social relationships and networks. In a species that

depends on co-operation to survive, individuals must be able to maintain their place in the group while keeping track of what other people are doing and with whom. Non-human primates accomplish this through mutual grooming, but Dunbar believes that as human groups became larger, a development driven by changing environmental conditions, grooming became less efficient, taking up more time than it was practical to spend on it. Talking offered a more efficient alternative: you could interact with more than one person at a time, and while doing other tasks. Since its purpose was forging and maintaining social networks, Dunbar proposes that early human interaction would have consisted mainly of what we now call gossip—social talk about what other people are doing, who with and what it means. And in Dunbar's view women would have been the central actors in this ongoing conversation. Early human social networks would have resembled those of, for instance, chimps, where the smallest stable social units are female-centred groups, with adult males on the periphery.

Dunbar believes this account is consistent with what we know about language and gender differences among present-day humans. Women are the more talkative sex, they favour a co-operative and supportive style of spoken interaction, and they are particularly interested in gossiping about other people's personalities, relationships and behaviour. There is also evidence suggesting that modern human females have more advanced verbal abilities than males—they develop more quickly as children and do better on tests of verbal skill. Many contemporary scientists connect this to sex-differences in the organization of the brain, and conclude that females evolved to be 'more verbal' than males because this was adaptive in the conditions of prehistory. Some also talk about the other side of the coin—the idea that what men needed in prehistory was not verbal skills and a capacity for co-operative social networking, it was spatial skills for hunting and aggression for fighting over women and other resources.

The other theory, espoused by scholars such as John Locke (2011) and Geoffrey Miller (2000) is that the key adaptive function of language for early humans related to courtship and mate-choice. Males used speech to show off to females, and females used the evidence of men's speech to gauge their intelligence, their personal qualities, and therefore their reproductive fitness. In other words language worked like the peacock's tail, which Darwin had used to illustrate the concept of sexual selection. The peacock's tail is costly, like humans' large brains: it makes flying and evading predators more

difficult. But if displaying it makes peacocks which have it more attractive than those who do not to potential mates, and so enables them to pass their genes to more offspring, big-tailed peacocks will eventually become dominant in spite of the other costs.

People who make the courtship argument about human language also believe it is supported by modern evidence about gender and linguistic behaviour. Men are the more competitive language-users, and across cultures they dominate linguistic genres that involve public performance. Men are the orators, the poets, the rappers, the verbal duellers and the stand-up comics. Proponents of this argument dismiss the objection that women have superior verbal skills by observing that this finding is based on written tests done in classrooms or labs, and as such it measures a kind of skill which is totally irrelevant in discussions of early humans (and not especially relevant to the mating habits of modern ones).

The difference between the two theories is mostly one of emphasis. Dunbar does not dispute that language had a function in courtship, he just believes that the social networking function was more important. The courtship theorists agree that women do co-operation and gossip, they just think the sexual selection issue is paramount. On the question of how men and women behave linguistically now, the two accounts are very close. But they are also very strikingly at odds with the best available research evidence. For reasons of space I will provide only brief summaries of the relevant points, but the references cited offer more detailed discussion.

1. Research does not support the belief that women are more talkative than men: on the contrary, in fact, it shows that in contexts where there is a gender difference, men typically talk more than women (Leaper and Ayres 2007; Mehl et al. 2007; Karpowitz and Mendelberg 2014).
2. Research does find sex-differences on some measures of verbal ability, and these usually work to the advantage of females. However, meta-analytic studies show the effect is very small, and that the variation within each gender group is greater than the difference between them (Hyde and Linn 1988; Hyde 2005).

3. On sex-differences in the organization of the brain for language, the findings are mixed and their significance is a matter of considerable dispute (see e.g. Sommer et al. 2004).
4. Whether women are more co-operative speakers than men depends heavily on which groups of men and women you look at in what situations. In some cultures and subcultures it is women who have the reputation for verbal aggression, and in some cases it appears to be well deserved (Kulick 1993).
5. One generalization that is supported by evidence from a wide range of cultures is that public performance genres are typically male-dominated. However, EP explains this by citing women's innate lack of interest in verbal self-display, and that is not supported by research: the evidence suggests that the extent of women's participation is culturally variable, and related to how much control men have over public space and women's access to it (Cameron 2006).

Overall, the picture of gendered linguistic behaviour presented in EP owes very little to research on the subject done by linguists and anthropologists. It owes slightly more to research done by psychologists on verbal skill, though it conspicuously ignores the meta-analytic studies which have shown how small the differences actually are. But the source it owes most to is one you would not expect scientists to use at all: popular self-help texts such as Deborah Tannen's *You Just Don't Understand* (1990), and John Gray's *Men are from Mars, Women are from Venus* (1992). Tannen's book, in particular, is commonly cited in scientific journal articles, though *You Just Don't Understand* is not an academic study based on empirical data: it belongs to the same subgenre as Gray's, namely relationship advice for heterosexual couples.

Both books argue that heterosexual relationships are plagued by conflict which arises primarily from a mutual failure to appreciate that men and women do not, as the cliché goes, speak the same language. They share the same formal language system, but they have different ways of using it, which at a deeper level reflect different ways of thinking and relating to others. The solution proposed in both books is not for either sex to change their behaviour, but for both sexes to understand their differences and learn to accept them. Tannen and Gray updated this formula for the 1990s, but they were mining a very old seam of marital advice. In 1950, for instance, the problem page in the British weekly magazine *Women's Own* printed a letter from a reader who complained

that her husband spent more time on his various hobbies than he did on talking to his wife. The agony aunt's response was this:

I am sorry you are unhappy, but I doubt if you will ever really cure your husband of his maleness, which is the real trouble. Nature shaped the human male to romp about with his hunting and his war games (in your husband's case watered down to scouting and football), while the female remained in the cave to look after the children (quoted in Tokha 1993).

This belongs to a whole mythology about heterosexual relationships which we are steeped in from an early age—it appears in teenage magazines, TV sitcoms and literary works—and which figures relationships between men and women as an eternal 'battle of the sexes', played out by couples in large and small ways because of the different kinds of creatures men and women are. (He wants sex and she wants love. She wants deep conversations and he just wants to watch the football.) Part of the mythology is that things have always been this way. The agony aunt reminds her correspondent that she and her husband are just re-enacting a drama which has been going on since the dawn of time, using the conceit of the cave-dwelling couple.

What EP does is give this conceit the status of a literal truth (except that EP's ancestral humans are not cave-dwellers, but nomads foraging on the African savannah). The loophole which Victorian feminists identified in Darwin's work—that evolution was a continuous process of adaptation to new conditions, and that women's present inferior state need not be their state forever—is closed in EP, which postulates that human nature was forged during our prehistory and has not changed materially since. In this respect it is more deterministic than Darwin himself was. Earlier I quoted Mona Caird's suggestion that 'we would laugh' at anyone who argued that people's career choices were determined from birth by innate characteristics. In Simon Baron-Cohen's *The Essential Difference* we find this passage, apparently making, in all seriousness, the very argument Caird thought her Victorian readers would find untenable:

People with the female brain make the most wonderful counsellors, primary school teachers, nurses, carers, therapists, social workers, mediators, group facilitators or personnel staff. . . . People with the male brain make the most wonderful scientists, engineers, mechanics, technicians, musicians, architects,

electricians, plumbers, taxonomists, catalogists, bankers, toolmakers, programmers or even lawyers (Baron-Cohen 2003: 185).

Elsewhere (Cameron 2007) I have argued that the resurgence of this kind of writing about sex-differences at the end of the 20th century reflected anxiety about the reality of social change. We have essentially got what the feminists of the 1890s wished for. That is not to say, in Mona Caird's sarcastic phrase, that 'the happy moment has arrived when matters have reached perfection'. We do not have perfect gender equality. But I think it is fair to say that educated men and women living in affluent societies today are less different from one another, and less constrained by their biology, than any group of men and women have ever been in human history.

The significance of that development is indicated by the backlash it has provoked. The currency of EP's meta-narrative, both among scientists and in popular culture, is one aspect of this backlash: it says that whatever has changed, and however similar men and women might appear, at a deeper level the differences are still there, and always will be there. Whatever inequalities we see now between men are not the result of injustice, but simply the residue of natural difference. Whenever we hear that, we should remember it has been said before. It did not deter feminists in the past, and it should not deter us now.

References

- Baron-Cohen, Simon. 2003. *The Essential Difference: Men, Women and the Extreme Male Brain*. London: Allen Lane.
- Blackwell, Antoinette Brown. 1875. *The Sexes Throughout Nature*. New York: Putnam.
- Caird, Mona. 1894. 'Suppression of variant types', reprinted in *The Late Victorian Marriage Question: A Collection of Key New Woman Texts*, Vol. 1, 1998, edited by Ann Heilmann. London: Routledge.
- Cameron, Deborah. 2006. 'Theorising the female voice in public contexts', in *Speaking Out: The Female Voice in Public Contexts*, edited by Judith Baxter, 3-20. Basingstoke: Palgrave Macmillan.
- Cameron, Deborah. 2007. *The Myth of Mars and Venus: Do Men and Women Really Speak Different Languages?* Oxford: Oxford University Press.

- Cronin, Helena. 2001. 'It's only natural', *Red Pepper*, February.
<http://www.redpepper.org.uk/its-only-natural/> accessed 31 August 2015.
- Darwin, Charles. 2008. *Evolutionary Writings*, edited by J. Secord. Oxford: Oxford University Press.
- Demos. 1996. 'Matters of life and death: the world view from evolutionary psychology'. *Demos Quarterly*, 10. <http://www.demos.co.uk/files/mattersoflifeanddeath.pdf> , accessed 31 August 2015.
- Dunbar, Robin. 1996. *Grooming, Gossip and the Evolution of Language*. London: Faber.
- Fausto-Sterling, Anne. 2014. 'Nature'. In *Critical Terms for the Study of Gender*, edited by Catharine Stimpson and Gil Herdt, 294-319. Chicago: University of Chicago Press.
- Grey, John. 1992. *Men are from Mars, Women are from Venus*. New York: HarperCollins.
- Hyde, Janet Shibley. 2005. 'The gender similarities hypothesis'. *American Psychologist* 60(6): 581-92.
- Hyde, Janet Shibley and Linn, Marcia. 1988. 'Gender differences in verbal ability: a meta-analysis'. *Psychological Bulletin* 104: 53-69.
- Karpowitz, Christopher F. and Mendelberg, Tali. 2014. *The Silent Sex: Gender, Deliberation and Institutions*. Princeton, NJ: Princeton University Press.
- Kulick, Don. 1993. 'Speaking as a woman: structure and gender in domestic arguments in a Papua New Guinea village'. *Cultural Anthropology* 8(4): 510-41.
- Leeper, Campbell and Ayres, Melanie. 2007. 'A meta-analytic review of gender variations in adults' language use: talkativeness, affiliative speech, and assertive speech'. *Personality and Social Psychology Review*, 11(4):328-63. doi: 10.1177/1088868307302221.
- Locke, John. 2011. *Duels and Duets: Why Men and Women Talk So Differently*. Cambridge: Cambridge University Press.
- Mehl, M.R., Vazire, S., Ramírez-Esparza, N., Slatcher, R.B. and Pennebaker, J.W. 2007. 'Are women really more talkative than men? *Science*, 6 July, 82.
- Miller, Geoffrey F. 2000. *The Mating Mind: How Sexual Choice Shaped the Evolution of Human Nature*. New York: Doubleday.
- Pinker, Steven. 2002. *The Blank Slate: The Modern Denial of Human Nature*. London: Allen Lane.

Sommer, I. Aleman, A., Bouma, A. and Kahn, R. 2004. 'Do women really have more bilateral language representation than men? A meta-analysis of functional imaging studies'. *Brain* 127: 1845-52

Tannen, Deborah. 1990. *You Just Don't Understand! Men and Women in Conversation*. New York: Morrow.

Tokha, Laura. 1993. "I suggest you accept everything": *Woman's Own* agony columns in 1950 1970 and 1990'. University of Tampere, Finland.