

Book Reviews

DIFFERING COGNITIVE STYLES

The essential difference. Simon Baron-Cohen, 2003. London: Penguin; ISBN 0713996714 paper, 263 pp., £7.99 paper.

Simon Baron-Cohen explores the notion that male and female brains are perfectly adapted for certain specialist niches – one adapted to survival and integration in the social world, and the other adapted to predicting and controlling events. Baron-Cohen's sensitivity to accusations of gender stereotyping in the pursuit of explorations into gender difference is evident and he points out that the spontaneous tendencies of each brain type are not necessarily embodied in the expected gender. Nevertheless, the author convincingly makes a case for the need to establish a hypothetically extreme male and female brain in order to establish the co-ordinates of his theory. Cultural and social influences are rigorously explored; however, his broad-ranging research points to innate biological factors that initially predispose males and females towards their environment in a particular way. One of the enormous strengths of this text is the author's use of relevant and fascinating case studies to ground his developing theory. We instantly recognize certain personality types and patterns of behaviour and become drawn into a multifaceted theory, which provides an informed and entertaining perspective that is applicable to everyday life.

Baron-Cohen suggests that predominant empathizing skills typify the extreme female brain and predominant systemizing skills typify the extreme male brain. He maintains that systemizing and empathizing are entirely different kinds of processes, that empathizing is used to make sense of an individual's behaviour whilst systemizing is used for predicting almost everything else and, further, that empathy demands a certain degree of attachment whereas detachment is a necessity for effective systemizing. Baron-Cohen maintains that the extreme female brain would be characterized by a high empathizing ability combined with a difficulty in understanding mathematics, physics, or chemistry *as systems*. The extreme male brain is presented as high systemizing (primarily in a mechanistic, technical manner) and low empathizing (to the extent that all social interaction is potentially problematic). He goes on to suggest that society at present is likely to be biased towards accepting the extreme female brain and stigmatizes the extreme male brain.

Baron-Cohen then makes a comparison between the extreme male brain and high-functioning autism – the sex ratio of this disorder is currently at least 10 males to every female. The author's pioneering contribution to research into autism-spectrum (AS) disorders is renowned. His conclusions, which are highlighted by several case studies included in the text, indicate that autism-spectrum conditions are strongly genetic in origin. Interestingly, he makes the observation that of the few adult AS patients in his clinic who were female, many of them recall being described as 'tomboys' in their behaviour and interests. Given his earlier stated assertion that both empathy and systemizing come from different regions of the brain, the fact that both structural and functional neurological differences are evident in autistic-spectrum disorders validates his controversial exploration of gender led thinking patterns and behaviour.

Perhaps the most startling scientific data presented in the book relates to evidence of structural and functional differences between the female and male brains. Current medical technology has revealed distinctly dissimilar growth patterns in relation to both right and left hemispheric development and significant differences in the size of various areas of the brain relating to cognitive style. Baron-Cohen also presents convincing research indicating a correlation between hormonal levels and spontaneous empathy or systemizing behaviour patterns. From his series of controlled studies, it would seem that from birth, females are biologically set up to become more adaptable socially and linguistically and less likely to become technically obsessed, whereas males are already predisposed towards more systemizing behaviour, make considerably less eye contact and often demonstrate competitive tendencies. The social implications of these findings could also be considerable – for example, Baron-Cohen acknowledges that increased empathy can provide an effective brake to aggression.

As for educational implications, the author tentatively suggests that teachers could target their teaching on areas where each sex is likely to need more direction and support, yet asks 'But should we really attempt intervention at all? Should society strive to make an average male more empathetic, or an average female more focused on systemizing?' This adds an interesting slant to Jerome Bruner's definition of two ways of knowing, 'the narrative and the paradigmatic'. The former conforms closely to Baron-Cohen's description of the spontaneous female cognitive strategies and the latter, male cognitive strategies. Baron-Cohen uses the highly researched male and female map reading strategies as a classic example of the male superiority in understanding space as a geometric system with

the focus on roads and routes, and female superiority in recognition of landmarks, relative locations and memorizing road names. Gender aside, two fundamentally differing cognitive styles are outlined, one imposing a formula and relating the parts to that system, the other developing a theory through the gradual accumulation of data, building up a network of connections. It is perhaps worth noting that logico-scientific, paradigmatic learning is still the predominant mode of educational practice.

However, Baron-Cohen's diagrammatic representation of the full range of brain profiles includes a category that he refers to as 'the balanced brain' (pitched exactly between the extreme male and female brains), suggesting that, despite the biological differences and perhaps differential social and educational support, a significant proportion of male and female adults demonstrate an equal range of both empathizing and systemizing skills.

Baron-Cohen's stated intent is to explore, value and indeed celebrate differences in the male and female patterns of intelligence. He suggests that popular texts such as *Men are from Mars and women are from Venus* present a divisive and unhelpful model in terms of understanding male and female cognitive strategies. *The essential difference* is one of those rare texts that has the potential to permanently add colour and dimension to the reader's world view of a well worn subject.

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INSIDE HIDDEN LIVES

Prostate tales: men's experiences with prostate cancer. Ross Gray, 2003. Harriman, TN: Men's Studies Press Paper; ISBN 193132008 Paper, 195 pp., £8.00 paper.

Prostate cancer is a secret killer in the hidden lives of men. Prostate cancer not only affects one in eight men in the western world but is surrounded by a shadowy aura of confusion, uncertainty and lack of easily available information. Many men know very little about their own prostates. According to a Mori poll published in the UK in 2001 only 12% of men knew what the prostate gland does and 20% wrongly believed that it is located in the testes.¹ But even more importantly a corrosive culture of shame, silence and humiliation is often associated with prostate cancer and its main side effects arising from treatment – incontinence and impotence.