



Gender agenda

Judith Ireland talks to the author of a blistering new book which demolishes the notion that gender differences are hard-wired

As an academic psychologist and the mother of two young boys, Dr Cordelia Fine is an avid reader of parenting books. On her reading list three years ago was American psychologist Leonard Sax's 2005 bestseller, *Why Gender Matters*, which argues hard-wired neurological sex differences mean boys and girls should be parented and taught differently.

"I found the book really interesting but being an academic, I wanted to look at the studies being cited at the back," says Fine, an honorary fellow in the Department of Psychological Sciences at Melbourne University. But after examining the research underpinning Sax's arguments, she was shocked to find that many of the studies quoted had been misrepresented. When she later saw her son's kindergarten teacher reading Sax's work and recommending it to parents, it was the last straw. "I thought, 'This is awful, this is just gender stereotypes dressed up in neuroscience', and that was really the motivation to write my own book."

Delusions of Gender: The Real Science Behind Sex Differences – a blistering yet irreverent take on the idea that gender differences are hard-wired into our brains – is the result of Fine's frustrations. In a manner akin to her 2007 book, *A Mind of Its Own*, which examined the influence of stereotypes on the brain, she presents readers with the current state of scientific play.

Born in Canada, raised in the United States and Britain, and now living in Melbourne, Fine began work on the book with the modest aim of alerting people to the fact that (some) neuroscience was being over-interpreted, while reminding them not to forget about social factors in the face of dazzling but often imprecise brain scans. However, as she delved deeper into the library shelves and journal databases the scope of the book changed dramatically.

"I was expecting to find [some] evidence of inbuilt differences but when I looked closely at it, I was really surprised at how little concrete evidence there is for the popular idea that there's a male brain hard-wired to be good at understanding the world and a female brain hard-wired to understand people. It was like this very solid scientific structure at a distance, but when you looked at it up close, it crumbled away in your fingers."

Fine's unease only increased when she examined the wealth of recent research regarding the brain's susceptibility to gender stereotyping. "What I came to realise is that these very confident, popular claims about male brains and female brains and what they're good for, they become part of the cultural lore," she says. "And they can have quite profound self-fulfilling psychological effects on us." For example, studies have shown that women who are told that men are better at "logical-mathematical tasks" perform worse on maths testing than women who are told they are better or equal to men.

So Fine found her focus shifting to take down the "neurononsense" of popular-science books such as John Gray's *Men Are from Mars, Women Are from Venus* and Michael Gurian's *What Could He Be Thinking?*. In

the process, she also wanted to strike a blow for feminism. "As a side effect, I hoped that the book would dispel this belief [that] science has shown that hard-wired sex differences mean that it's pointless to hope or strive for greater sex equality."

As a young child, Fine remembers spitting on an Enid Blyton book in disgust after a male character tells his female companion she can't go on an adventure because she is a girl. But her feminist "inner spitter" did not really kick in until she was a parent and witnessed firsthand how automatically and definitively children are categorised based on gender. Indeed, academically, she does not hail from a women's studies background. She studied experimental psychology at Oxford University, before undertaking a masters in criminology at Cambridge and a PhD in cognitive neuroscience at University College London. She recalls sitting in Richard Dawkins's lectures on evolutionary psychology, accepting arguments about reproductive differences between males and females as an explanation for their different natures without question. "I didn't baulk at any of that."

Today, however, Fine baulks at plenty. She begins *Delusions of Gender* by arguing there is nothing "hard-wired" about our brains; they are constantly being influenced by our surroundings. And while the world has come a long way in terms of gender equality, it is only "half-changed", with women still battling stereotypes about their role and abilities in the school room, workplace and home.

She goes on to coin the term "neurosexism" to explain how science is misappropriated to reinforce gender stereotypes, even though there is no hard evidence to suggest that males are any more capable at things like spatial activities and mathematics. Or that women are any better at empathy and housework – a point where she is joined by Barnard College professor Rebecca Jordan-Young, who has recently published *Brainstorm: The Flaws in the Science of Sex Differences*.

Fine argues that sexism today is often subtle, with neuroscience used as a powerful source of justification. "Suddenly, one is being modern and scientific, rather than old-fashioned and sexist," she says when describing the claim that men are better at abstract thought (and thus physics) than women. Critically, Fine also cautions that neuroscience is still a developing field. The brain, and technology around studying it, are much less understood than we might think. Indeed, Fine describes MRI scans as "blobology", given they gather information several steps removed from brain activity, let alone behaviour.

The book's final section illustrates how impossible it is to raise a child in a truly gender neutral environment, no matter how conscientious parents are about offering their sons dolls and their daughters trucks to play with. "I think this myth that we tried gender-neutral parenting and it didn't work is one we have to dispel." From the colour coding of newborn babies to the type of wrapping paper they receive birthday gifts in, "children are reared in a world which is absolutely saturated with information [about] what goes with



being male and what goes with being female”.

Fine takes on some big names in *Delusions of Gender*. Along with Sax, Gray and Gurian, University of California-San Francisco neuropsychiatrist Louann Brizendine, eminent Cambridge University psychologist Simon Baron-Cohen and former president of Harvard University Lawrence Summers are all picked apart.

Brizendine’s 2006 book, *The Female Brain*, has already been criticised in the journal *Nature* for its citation errors. But Fine’s further investigation of the famous psychiatrist’s argument that women are “hardwired for empathy” shows it is based on inaccurate or irrelevant findings and, in one instance, a made-up reference.

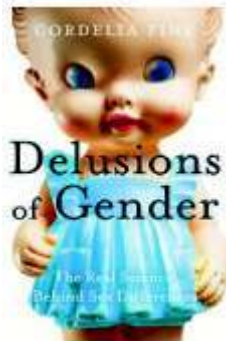
As Fine also deftly points out along the way, ridiculous historical statements about gender are not so historical. Two hundred years ago, English clergyman Thomas Gisborne’s *An Enquiry into the Duties of the Female Sex* was an 18th-century bestseller, arguing that the law, politics and business are “assigned chiefly to men” because they “demand the efforts of a mind endued with the powers of close and comprehensive reasoning, and of intense and continued application”. Women on the other hand, have “powers adapted to unbend the brow of the learned . . . and to diffuse . . .

the enlivening and endearing smile of cheerfulness”. In his 2003 work, *The Essential Difference: Men, Women and the Extreme Male Brain*, Baron-Cohen similarly and unapologetically argues that “the female brain is predominantly hard-wired for empathy. The male brain is predominantly hard-wired for understanding and building systems.”

Fine admits that had she known what she was getting herself into with *Delusions of Gender*, she might have thought twice. “I knew I would be criticising popular authors; I didn’t realise to what extent I would be wading knee deep through the papers themselves.” But while the book came out a month ago in the US, Fine is yet to see any specific rebuttals. Rather, it has been enjoyed justifiably positive reviews in publications such as *Newsweek*, *New Scientist* and *The Washington Post*. Then again, dissent would be no bad thing. “If my book triggers a debate, I’m very happy,” she says.

• *Delusions of Gender: The Real Science Behind Sex Differences*. By Cordelia Fine. Icon. 338pp. \$29.99.

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Fine coins the term ‘neurosexism’ to explain how science is misappropriated to reinforce gender stereotypes



Cordelia Fine: popular-science “nuerononsense”.
Photo: Simon Schluter