

Edinburgh International Science Festival – Gender and the Brain



The ever enquiring Edinburgh International Science Festival hosts 'Gender and the Brain' as part of BBC Radio Scotland's Brainwaves series this Monday. An expert panel led by broadcaster Pennie Latin is ready to explore the differences between the brains of different genders, and what that means for us as a society. Is there still a battle of the sexes? Is this an outmoded idea? Have traditional gender roles any place in modern world, or are there good societal reasons for the way they have developed?

Professors Polly Arnold and Richard Ribchester agree that there are indeed some differences in the brains of boys and girls even before they are born, thanks to the influence of hormones in utero. These small differences can be seen at both anatomical and cellular level, but what does this really mean to us as people? The evidence seems to point to extreme plasticity in the brain, meaning that we all respond and change as we grow. This makes us unique individuals, whether we are male or female.

The Science Festival panel and audience ponder the questions "What are the differences between male and female brains, and how does this affect our development and our society?" Dr Gillian Brown explains the current research in this area from her perspective as a behavioural neurobiologist, including differences in environment and social expectations of girls and boys. What influence does the 'pink princess' face of advertising, or science toys marketed specifically for boys, really have on our children?

In an audience interaction session there is humour and tolerance for the average differences between the genders. As the room explores the stereotypes of men and women with many chuckles, the panel points out that these stereotypes are only that, average differences across large groups of male and female. As the current human research is based on averages, the panel explains the flaws in applying the results of averages onto an individual's capabilities, saying "assumptions made of an individual's abilities based on gender are unscientific."

However, research in this area does have important practical applications in health and social care, since some diseases affect one sex more than the other. Professor Simon Baron Cohen discusses his work on autism, which is far more prevalent on boys than girls. He gives real insight into what happens when the 'maleness' of a brain reaches extremes.

As always at an Edinburgh International Science Festival event, there is far more interest, enthusiasm and questioning than there is time for in the session, so the discussion continues in a convivial manner in the bar, in the best scientific tradition.

The session is hugely enjoyable and good humoured, with a message of tolerance for our individual differences. The panel advises that we are all unique, with our own talents and foibles, regardless of our gender.

To join the debate listen in to BBC Radio Scotland on Monday at 1.30 pm or catch it via the website.

[The Edinburgh International Science Festival](#) has lots more fascinating and fun events in store, and runs throughout the city until 19th April.