

email

How would you define autism?

Autism spectrum conditions are neurodevelopmental, meaning that alterations in brain development, pre- and post-natally, affect how the individual perceives and learns. It is diagnosed in terms of difficulties in social development and in communication, alongside having unusually narrow, strong interests, often referred to as 'obsessions' and a preference for repetitive behaviour, which is also conceptualised as an aversion to change.

Recent media reports have reopened the debate on the link between the MMR vaccination and autism. Are the claims justified?

There is no strong evidence for this link, since in Japan, although the rates of autism were rising (as they have been worldwide), they continued to rise even after the withdrawal of the MMR public health programme.

Rather, the strongest evidence is for genetic factors as the cause of autism, mostly coming from studies of twins.

What is the true incidence of autism in the UK?

The best estimate of the rate of autism is one per cent, this figure being based on a study published in the *Lancet* in 2005. This includes the whole spectrum, including Asperger's syndrome. The difference between classic autism and Asperger's syndrome is in age of speech onset, which is delayed in classic autism, and the presence or absence of general



Simon Baron-Cohen, director of the Autism Research Centre at Cambridge University, talks to Ian McMillan about his work and how society should help those with autistic spectrum conditions

learning difficulties, which are absent in Asperger's syndrome.

Are rates rising and, if so, why?

This new figure of one per cent certainly represents an increase over earlier figures. For example, the textbook figure of prevalence of autism in 1978 was four in 10,000. This increase is likely to be due to better diagnosis, greater awareness, growth in services and professionals who can diagnose, and broadening the diagnostic criteria to include, for example, Asperger's syndrome.

In what way should services be responding to people with autism?

Currently, the best way for services to be responding to people with autism or Asperger's syndrome is through family and individual support, delivered by social services, special educational provision, sheltered employment and sheltered living, where necessary.

What brought you into the learning disability field?

My journey in the autism field began as a teacher after I graduated from university, in a small unit for children with autism, where I became fascinated by what might be causing the disconnect between superior processing of some kinds of information, for example, detecting detail in vision or storing detail in memory, and major disability in processing other kinds of information, such as detecting other people's emotional states or inferring what they might be thinking.

Over the last 25 years, this journey has proceeded from behaviour and cognition – the core levels of psychology – through to brain function and structure – the core levels of neurology – to the mechanisms of hormones and genetics as causal factors at the level of molecular biology. Such an inter-disciplinary approach is essential in modern cognitive neuroscience.

Along the way, we have also kept a focus on practical applications of research, such as the development of a useful checklist for screening of autism at 18 months of age, for health visitors or GPs to use, or the development of useful specialist educational software, for parents and teachers to use. Examples of the latter are a DVD that helps teach emotion recognition (www.jkp.com/mindreading), or a children's animation that does the same (www.transporters.tv).

Is funding a problem for autism researchers?

Thankfully, funding for autism researchers is getting easier thanks to the mix of philanthropy and government initiatives, though at the level of graduate training, it is still woefully inadequate. The hope is that autism research will continue to make progress in terms of basic understanding of the causes of these conditions, and develop methods for reducing the troubling aspects, while retaining areas of strength to enable such individuals to feel valued for how they are special, and at the same time, receiving the right support ■

Links

The National Autistic Society (www.nas.org)
The Autism Research Centre (www.autismresearchcentre.com)

Further reading, by

Dr Baron-Cohen

Autism: The Facts (OUP)
The Essential Difference (Penguin)
Mindblindness (MIT Press)