## brain & behaviour

## Making apoint

Developing tests to diagnose autism early can be crucial to help children reach their full potential, says Simon Baron-Cohen

utism affects 1 per cent of children, a 25-fold increase on 30 years ago. Part of this increase is due to the broadening of the category of autism. In the past only classic autism – children who have severe social and communication difficulties, alongside unusually narrow interests and very repetitive behaviour – was diagnosed. Most children with classic autism also have additional learning difficulties (or below average IQ) and a degree of language delay, not talking until after the age of 2.

Today we also diagnose Asperger Syndrome. Children with Asperger Syndrome have similar social and communication difficulties, and the narrow interests and love of sameness. But unlike those with classic autism, they have a normal or even above average IQ and develop speech on time. These two subgroups are said to lie on the autistic spectrum.

In the Nineties, our research group developed the first screening method for autism at 18 months. Called the Chat (Checklist for Autism in Toddlers), it was used by health visitors across a group of 16,000 toddlers.

They found that if two key types of behaviour (pretend play and pointing to share interest) were not evident by 18 months, this strongly predicted the toddler would go on to develop classic autism. A normal toddler would naturally slip into this behaviour, which pres-

ents a real challenge to a child on an atypical path of development. Pretend play is just that: pretending to feed a doll, for example. Pointing to share interest is known by speech therapists as "protodeclarative pointing". The child uses their outstretched index finger to point at something, while looking at the other person's face to see if they are looking at the object too.

The normal toddler does this to share their experience. It is not the same as "protoimperative pointing", the kind that translates as "get that for me." Protodeclarative pointing is the toddler's way of saying "Look at that"—clearly communication, even before words.

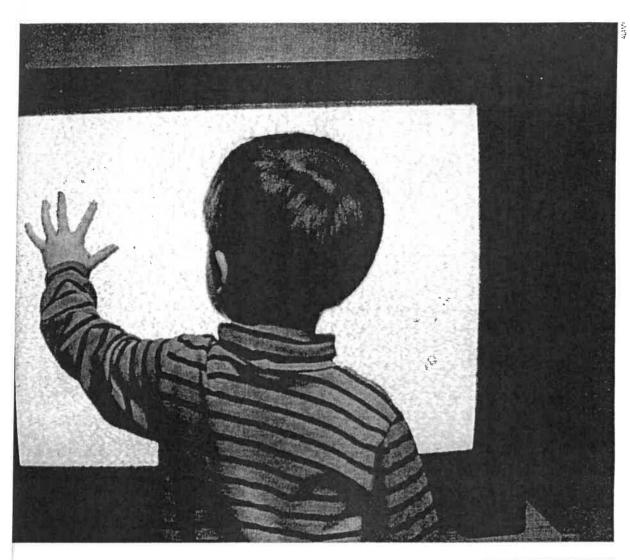
The vast majority of toddlers show these two key behaviours by 14 months. As we reported in *The British Journal of Psychiatry* (1996), of the 12 children in the group who failed to show them by the age of 18 months, 10 of them (83.3 per cent) went on to receive a diagnosis on the autistic spectrum.

The good news was that the test confirmed for the first time that autism could be diagnosed early. This increases the likelihood of providing the right support as soon as possible to help the child and his or her carers.

The not-so-good news was that the test missed as many cases as it picked up. It was largely only picking up cases of classic autism, and even then, not all of them. Asperger Syndrome is typically only diagnosed at primary school (age six) and often much later (in the teens or even adulthood).



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To improve the Chat's ability to detect most children on the attistic spectrum at 18 months, including those who go on to develop Asperger Syndrome, it has been revised.

The Q-Chat (Quantitative Checklist for Autism in Toddlers) is a scale, where you can show behaviour to differing degrees (from very frequent to very infrequent), unlike the Chat, which was an all-or-none scoring system (you either pass or fail each item).

The Q-Chat will be tested on 20,000 toddlers aged 18 to 30 months, to see if it meets the standards for a national screening instrument: correctly identifying at least 75 per cent of the actual cases in a population. Results will be available late in 2009.

So what is the value of early identification? We know that there are effective methods for helping children on the autistic spectrum learn and develop, such as speech therapy, and tailored, intensive special education.

We assume that starting such intervention earlier will lead to a better prognosis, though a study needs to be carried out to confirm this.

The charity Research Autism is fundraising to evaluate different interventions, since we assume that different methods will be needed for different kinds of children.

Such interventions are not aimed at a cure, since autism and Asperger Syndrome involve a mix of difficulties and strengths.

The most welcome interventions will be those that target the areas of difficulty while leaving the areas of strength (such as excellent attention to detail and an ability to focus attention deeply for long periods on a single topic) not just untouched, but free to develop to their full potential •

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## References

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