Is There a Difference Between Asperger's Syndrome and High-Functioning Autism? By Tony Attwood

We have been exploring the nature of autism, as described by Leo Kanner, for nearly 60 years. He described a severe form of autism, typified by the silent and aloof child. We have only been exploring the profile of autism described by Hans Asperger for about 15 years. The children he described had speech and were active participants in social interactions. There is currently some debate in the academic literature and between clinicians as to whether Asperger's syndrome is a unique disorder with a profile of abilities that does not occur in any other syndrome or simply a form of autism with a higher intelligence quotient.

There is general agreement that autism as defined by Leo Kanner and 'autistic psychopathy' (the original descriptive term of Hans Asperger which was later changed to the term Asperger's syndrome by Lorna Wing) are two conditions within the range of disorders known as Pervasive Developmental Disorders or Autistic Spectrum Disorders. In 1994 the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) provided diagnostic criteria for Asperger's syndrome. The opinion of the authors of the manual, which was revised in 2000 (DSM-IV-TR) was that Asperger's syndrome could be differentiated from autism by an examination of the child's early development and the existence of some characteristics that were rare in children with autism. They considered that early language and cognitive skills are not delayed significantly in children with Asperger's syndrome. There is also no clinically significant delay in age-appropriate self-help skills, adaptive behaviour and curiosity about the environment in childhood. The clinical profile of a child with Asperger's syndrome is also less likely to include motor mannerisms and preoccupation with parts of objects as occurs in autism but the child can have a circumscribed interest that consumes a great deal of their time amassing information and facts. They also noted that the profile of social skills in children with autism includes self-isolation or rigid social approaches, while in Asperger's syndrome there can be a motivation to socialise but this is achieved in a highly eccentric, one-sided, verbose and insensitive manner. Should the child's profile of abilities and developmental history be consistent with the criteria for both autism and Asperger's syndrome, the authors of the DSM state that a diagnosis of autism should take precedence.

The diagnostic criteria in the DSM, which provide a differentiation between autism and Asperger's syndrome, have been examined by several research studies over the last five years. There has been some criticism from clinicians and research that the criteria do not identify the disorder Hans Asperger originally described. The four cases he described in his original paper would be diagnosed, according to DSM criteria, as having autism not Asperger's syndrome. (Miller and Ozonoff 1997). If one was to use the DSM criteria, Asperger's syndrome would be a very rare condition.

Research has also been conducted on whether delayed language in children with autism can accurately predict later clinical symptoms. Three studies have cast considerable doubt over the use of early language delay as a differential criterion between autism and Asperger's syndrome (Eisenmajer, Prior, Leekam, Wing, Ong, Gould and Welham 1998, Dickerson Mayes and Calhoun 2001 Manjiviona and Prior 1999). Any differences in language ability that are apparent in the pre-school years between children with autism and Asperger's syndrome has largely disappeared by early adolescence (Eisenmajer, Prior, Leekam, Wing, Ong, Gould and Welham 1998, Ozonoff, South and Miller 2000).

There is general agreement that children with Asperger's syndrome may not show any conspicuous cognitive delay in early childhood. Indeed, some can be quite precocious or talented in terms of learning to read, numerical abilities and in some aspects of their constructive play and memory. Children with autism can be recognised as having developmental delay in their cognitive abilities from infancy and diagnosed as young as 18 months of age with a mean age of diagnosis of five years. Children with Asperger's syndrome are often not diagnosed until after they start school with a mean age of diagnosis of eleven years (Howlin and Asgharian 1999). However, the signs of Asperger's syndrome in very young children may be more subtle and easily camouflaged at home and school. On reflection, parents (especially mothers) and teachers have often been concerned about some aspects of the child's cognitive development, in particular their social reasoning, but their concerns may have been intuitive, and difficult to describe to clinicians. It is not until the child is expected to

show more advanced cognitive abilities that formal assessments indicate significant delay or an unusual profile in cognitive development.

There has been research comparing the cognitive profile of adolescents with autism and Asperger's syndrome. The studies have examined the cognitive profile of what may be called 'High Functioning Autism', that is children with a diagnosis of autism with an Intelligence Quotient in the normal range, i.e. above 70. The term High Functioning Autism has been used in the past to describe children who had the classic signs of autism in early childhood but as they developed, formal testing of their cognitive skills indicated a greater degree of intellectual ability with greater social and adaptive behaviour skills than are usual with children with autism. Their clinical outcome was better than expected. The cognitive abilities of this group of children were then compared to the cognitive profile of children with Asperger's syndrome, who did not have a history of early cognitive or language delay. The results of the research has not established a distinct and consistent profile for each group. Ehlers, Nyden, Gillberg, Dahlgren Sanberg, Dahlgren, Hjelmquist and Oden (1997) found that only a minority of each diagnostic group showed a characteristic profile.

One group of researchers, based at Yale University in the United States have suggested, on the basis of their research studies, that the neuropsychological profiles of children with Asperger's syndrome and High Functioning Autism are different. (Klin, Volkmar, Sparrow, Cicchetti and Rourke 1995). However, research by other scientists examining diagnostic differentiation using neuropsychological testing has not identified a distinct profile that discriminates between the two groups. (Manjiviona and Prior 1999, Miller and Ozonoff 2000 Ozonoff South and Miller 2000).

The DSM criteria refer to children with Asperger's syndrome as having, in comparison to children with autism, no clinically significant delay in age-appropriate self-help skills and adaptive behaviour. Clinical experience indicates that parents, especially mothers of children and adolescents with Asperger's syndrome, often have to provide verbal reminders and advice regarding self-help and daily living skills. This can range from problems with dexterity affecting activities such as learning to tie shoelaces to reminders regarding personal hygiene, dress sense and time management. Clinicians have also recognised significant problems with adaptive behaviour, especially with regard to anger management, anxiety and mood. (Attwood 2002). Clinical experience and research has confirmed that in terms of the child's behavioural profile, children and adults with High Functioning Autism and Asperger's syndrome have a very similar presentation (Ozonoff, South, and Miller 2000). Both groups benefit from the same behavioural treatment programs.

The academic may decide whether a particular subject in a research study has a diagnosis of autism or Asperger's syndrome to ensure that their research examines the same clinical populations as in other studies. The clinician has other considerations and decides whether the child has a diagnosis of autism or Asperger's syndrome to help define and understand their differences to other children. However their recommendations for treatment for both High Functioning Autism and Asperger's syndrome are the same.

Clinicians have noted that as the clinical picture of Pervasive Developmental Disorders or Autistic Spectrum Disorders changes over time, a child may receive a diagnosis of severe autism or High Functioning Autism at one point in their developmental history and Asperger's syndrome at a later stage. (Attwood 1998, Gillberg 1998). There is also the opinion among clinicians that, contrary to DSM, if a child meets criteria for both autism and Asperger's syndrome, the child is given a diagnosis of Asperger's syndrome (Mahoney, Szatmari, MacLean, Bryson, Bartolucci, Walter, Jones and Zwaigenbaum 1998)

A dilemma for the clinician is whether a particular diagnosis enables the child to have access to the government services that they need. In some countries, a child may only have support in the classroom or the parents receive government allowances or medical insurance coverage if the child has a diagnosis of autism. Clinicians may write reports with a diagnosis of autism rather than the more accurate diagnosis of Asperger's syndrome. This is particularly relevant when one considers the epidemiological research suggests that one person in 250 has Asperger's syndrome, using the criteria being adopted by clinicians (Kadesjo Gillberg and Hagberg 1999). Government and non-

government agencies, especially Education and Health departments, have usually not been funded for such an incidence and are reluctant to 'open the floodgates'.

Conclusion

Having reviewed the literature, we may be able to answer the question, is there a difference between Asperger's syndrome and High Functioning Autism? The reply is that the research and clinical experience would suggest that there is no clear evidence that they are different disorders. Their similarities are greater than their differences. We appear to be taking, particularly in Europe and Australia, a dimensional view of autism and Asperger' syndrome rather than a categorical approach. (Leekam, Libby, Wing Gould and Gillberg 2000). At present both terms can be used interchangeably in clinical practice.