

Asperger Syndrome

Wendy Fidler looks at recent research into Asperger Syndrome (AS) and the implications for Montessori settings.

Asperger syndrome (AS) is a condition which can be inherited. It entails empathy deficits together with unusually narrow interests and a strong need for routine. Most children with the condition have normal or above average intelligence.

Often called engineer's disease, the incidence of children with AS has increased dramatically in areas with a high proportion of technology inspired companies and research universities.

Asperger children do not imitate or empathize: could it be a dysfunctional mirror-neuron system (MNS)?

New imaging research at the University of California – Los Angeles (UCLA) shows that impairments in children's ability to imitate and empathize can be linked to dysfunction in the brain's mirror-neuron system. Scientists have demonstrated a clear link between a child's inability to imitate expressions on the faces of other people and a lack of activity in the mirror-neuron system (MNS).

Mirror neurons fire when an individual performs an action with a goal in mind. They also fire when one watches another individual perform that same action. Neuroscientists believe this "mirroring" is the neural mechanism by which the actions, intentions and emotions of other people can be automatically understood.

Children with autistic spectrum disorders can't rely on this system to read the minds of other people. Symptoms include varying levels of difficulty with social interaction, including verbal and nonverbal



AS children absorb facts and figures by osmosis

“The person usually has a strong desire to seek knowledge, truth and perfection with a different set of priorities than would be expected with other people. There is also a different perception of situations and sensory experiences. The overriding priority may be to solve a problem rather than satisfy the social or emotional needs of others.”

Tony Attwood, *The Complete Guide to Asperger Syndrome*

communication, imitation, and empathy. These findings bolster the growing body of evidence that points to a breakdown of the MNS as the mechanism behind these symptoms.

Early diagnosis for toddlers with Asperger Syndrome

Research by Professor Simon Baron-Cohen of the Autism Research Centre in Cambridge, UK, suggests that Asperger Syndrome can be diagnosed in children as young as 26 months.

In the study, the child's parents, a mathematician and a chemist, both have a formal diagnosis of AS. The aim of the study was to test if the child also developed AS, given the heritability of the condition, and if AS can be detected at 26 months. At 18 months, the child was given the Checklist for

Autism in Toddlers, and at 26 months, she was assessed diagnostically for autism spectrum conditions using the Autism Diagnostic Interview-Revised and the Autism Diagnostic Observational Scale. The child failed the Checklist for Autism in Toddlers at 18 months and met the criteria for Asperger Syndrome at 26 months. This single case is consistent with Baron-Cohen's hypersystemizing, assortative mating theory of autism. The theory requires further testing with large samples. This study also suggests that Asperger Syndrome can be diagnosed by age 26 months.

Difficulties for the AS child at school

By the time children with AS reach the second plane of development –



Synaptic Transmission

The process of communication from a neuron to a target (neuron, muscle, or secretory cell) across a synapse

around 6 years of age - they are generally aware of their own difficulties, both in everyday living and at school, and often exhibit high levels of anxiety. Often, there are disruptive behaviours at home, at school or both.

Sometimes the transfer to secondary schooling takes place before the real problems surface; these may not be academic (AS boys in particular are frequently top of the class). The difficulties are more likely to be because the child does not understand the behaviour and intentions of those around him, the meanings of the instructions and the lessons, or may not be able to interpret the wide variety of verbal and non-verbal language used by teachers and peers.

These implications are widespread in the diverse social settings of home, community and school.

There is increasing professional acknowledgement of the relationship between the communication difficulties experienced by children with AS, and the number of behavioural problems they may display. This is hardly surprising considering that communication difficulties constitute one of the principal deficit areas in AS.

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What are the implications of research into Asperger Syndrome for Montessori settings?

Issue: Children with dysfunctional mirror-neuron system (MNS) can't automatically understand the actions, intentions and emotions of other people. The subtleties of body language, white lies and diplomacy remain a mystery and can be the cause of stress and anxiety which bubbles up into poor behaviour or swearing, or total 'melt downs'.

Action: Social stories, role modelling and pictures of 'face emotions', which children can practice one with another and with adults are essential tools. Children's responses may be stilted but they will at least be understood by their peers and others. Many children with AS love the Thomas the Tank Engine books – the reason is because the characters make very big facial grimaces, smiles, gasps etc which AS children make note of and remember. They love to repeat these books because it helps them feel at one with the wider world. *Emily's Everyday Manners* is another great favourite and provides a range of scenarios for children to act out and discuss.

Issue: It seems likely that the symptoms of AS can be identified in very young children.

Action: This gives us a head start in providing interventions, by way of intensive communication interactions. Talking, singing, poetry and action rhymes all play their part, but the essential thing is to repeat these over and over again with babies and toddlers until their responses are eager and committed to having more. Give great emphasis to action rhymes as young children learn best through movement, and where you might give a passing nod, smile, glance or hug to show love or encouragement to a non-AS child, hold the pose just a little bit longer with your AS child as you search for his inner self.



Routine, everyday activities enable AS children to relax and engage with their peers

Asperger Syndrome

Asperger syndrome (AS) is at the higher functioning end of the autistic spectrum. It affects boys and girls, but affects boys in significantly higher numbers.

Children with AS also exhibit, to a greater or lesser degree, the 'triad of impairment', which is the defining character of autism, i.e. difficulties with communication, imagination and socialisation. In common with other autistic spectrum disorders, there are wide variations in the physical and mental symptoms, in the degree of difficulties it presents and in any early signs noted by parents.

Boys and girls with AS are sometimes described as having 'mild autism' but this is misleading and can undervalue the significance of the diagnosis. There is nothing mild about the impact of AS; the effects are considerable and permeate all aspects of everyday living and learning.

How does AS differ from classic Autism?

Children with AS usually have fewer problems with language than those with autism and usually begin speaking at the same age as other children speak. Older children are usually articulate and fluent, though their words can sometimes sound formal or stilted.

However, AS children's good verbal skills mask a tendency to rely on literal meaning.

Behavioural difficulties born out of social and emotional frustration are an important part of the diagnosis of AS.

Boys and girls with AS do not usually have the co-existing learning disabilities associated with autism; in fact they are often of average or above average intelligence.

Children with AS make better efforts to adapt socially - they have a genuine desire to make social contact but this can be thwarted by their inability to read body language and facial expressions.

Anxiety features significantly in the lives of AS children. Anxiety is often related to low self-esteem, fear of failure, fear of being misunderstood and of not understanding others. Girls and boys with AS say they fear being different and not 'fitting in'.



Children with AS repeat activities over and over again