



Gifted children with Asperger's Syndrome

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This article by Maureen Niehart suggests approaches for the teacher who works with young people with Asperger's Syndrome. AS is a disorder in the autism spectrum that is observed in some gifted children. Gifted children may be very difficult to diagnose with AS because the disorder may resemble other problems such as a learning disability or simply just similar traits of a gifted child. Common traits of gifted AS children are listed and compared to children who are gifted without AS in order to help identify these individuals.

ABSTRACT

Asperger's Syndrome is a pervasive developmental disorder characterized by deficits in social communication and by repetitive patterns of behaviors, or interests. It is observed in some gifted children. The author proposes that gifted children with Asperger's Syndrome may not be identified because their unusual behaviors may be wrongly attributed to either their giftedness or to a learning disability. The article discusses ways in which Asperger's Syndrome might be missed in gifted children and proposes guidelines for differentiating characteristics of giftedness from characteristics of Asperger's Syndrome.

PUTTING THE RESEARCH TO USE

Unlike autistic children who often receive special assistance in schools, the bright student with Asperger's Syndrome (AS) may be left to manage the best he or she can. In some cases, gifted students with the disorder may not be allowed to participate in their school's gifted program because teachers do not know how to make the necessary accommodations.

Experienced interdisciplinary teams can make an accurate diagnosis of AS when they include a developmental history and when they understand the reasons for a child's behaviors. Diagnostic evaluations include some formal testing, an assessment of motor skills, and observations of the child's social reciprocity and use of language.

Although no controlled studies have been conducted to empirically determine behaviors that distinguish gifted children with AS from other kinds of gifted children, clinical observation and studies of gifted children and Asperger children suggest that distinctions may be made by examining their pragmatic use of language, their insight and ability to take others' perspectives, the quality of their humor, their affective expression, and their response to disruptions of routine.

Effective teachers of gifted AS children understand that these students think very differently from other gifted children. To be successful in school, AS students often benefit from visual supports in order to manage the day-to-day routines and social demands of the classroom. Sensory integration therapy can be beneficial to gifted AS children whose hypersensitivity interferes with their learning or social adjustment. AS students can learn social skills with the aide of social stories, comic strip conversations, and other concrete, visual approaches.

Asperger's Syndrome is a pervasive developmental disorder included in the autism spectrum disorders of the Diagnostic and Statistical Manual (DSM-IV) of the American Psychiatric Association (APA, 1994). Like other pervasive developmental disorders, it is characterized by serious impairment in social interaction skills and repetitive behaviors and is believed to be the result of a specific brain anomaly.

Since the 1980s, there has been increasing interest in pervasive developmental disorders. Individuals with these disorders share certain neuropsychological characteristics similar to autism, but do not meet the formal diagnostic criteria for autism. Asperger's Syndrome (AS) is one such variation (Atwood, 1998; Gillberg, 1992). Children with AS share a number of characteristics with gifted children. It can be challenging to determine whether a child's unusual development is a result of giftedness, a learning disability, or AS, especially among highly gifted children.

AS was first described in 1944 by Austrian physician Hans Asperger. He considered it to be a personality disorder characterized by pedantic speech content, impairment of two-way interactions, excellent logical abstract thinking, isolated areas of interest, repetitive and stereotyped play, and ignorance of environmental demands. AS individuals were thought to be capable of originality and creativity in selective fields (Tsai, 1992). Asperger (1979) suggested that his syndrome was more likely to be observed in children of high intelligence and special abilities. However, to date, the clinical literature on AS has focused on children with average or low-average intelligence. There has been surprisingly little examination of AS among gifted children (Barber, 1996; Cash, 1999a; 1999b).

In the past few years, there has been a growing recognition among clinicians and teachers that gifted children with AS are sometimes not diagnosed because their unusual behaviors are attributed to either their giftedness or to a learning disability. The purpose of this article is to discuss the similarities in developmental traits of AS children and gifted children and to suggest guidelines for distinguishing AS features among the gifted. In addition, this article suggests approaches for working with gifted children with AS.

Asperger Children

Information on the prevalence of AS is limited, but the disorder is more common in boys than in girls (APA, 1994). Clinical descriptions of AS children include the following characteristics: little to no empathy, monotonous speech patterns, highly idiosyncratic and intense interests (e.g., tide tables, a specified cartoon character, maps), social isolation as a result of inappropriate social communication, and inflexible thoughts and habits (Atwood, 1998; Barron & Barron, 1992; Grandin, 1992; Sacks, 1995). AS children are similar to children with other autism spectrum disorders in that they have problems with social communication and persistent idiosyncratic interests. Unlike many autistic children, however, AS children do not evidence delayed speech, the onset of their difficulties is somewhat later, and they more commonly experience motor deficits (Atwood; Frith, 1991; Grandin, 1992; Klin, 1994; Schopler & Mesibov, 1992; Szatmari, Bartolucci, & Bremner, 1989).

In contrast to children diagnosed with autism, AS children speak before age 5; do not remain aloof and withdrawn, but express some interest in people as they get older; are of at least average intelligence; and may show dramatic improvement as they grow older. As adults, AS children can become well-adapted and even very successful. They do tend to remain socially isolated, egocentric, and idiosyncratic. They often have difficulty working with others and have odd speech; they cannot do small talk and may seem fanatically or obsessively interested in limited topics. The eye contact of AS children is often odd. They may seem to gaze off or stare straight through those with whom they are conversing. Others usually consider them "strange" or "weird" (Atwood, 1998; Barron & Barron, 1992; Grandin, 1992; Schopler & Mesibov, 1992; Szatmari, Bartolucci, Bremner, Bond, & Rich, 1989; Tantum, 1988).

Even within the subcategory of AS there is considerable variation. For instance, some perform poorly in school, while others achieve at a high level. Some have serious behavior problems, others do not. Some AS individuals demonstrate unacceptable habits, such as eating odd things, inappropriate touching, gnashing their teeth, and aggressive actions.

Similarities Between Asperger Children and Gifted Children

There seem to be at least seven characteristics common to gifted children and to children with AS. These commonalities have not been verified in any controlled studies, but are pulled from the shared literature and clinical experience. For instance, verbal fluency or precocity is common to both, and both may have excellent memories (Clark, 1992; Frith, 1991; Levy, 1988; Silverman, 1993). Both may evidence a fascination with letters or numbers and enjoy memorizing factual information at an early age. Both may demonstrate an absorbing interest in a specialized topic and may acquire vast amounts of factual information about it (Clark; Gallagher, 1985; Klin & Volkmar, 1995). They may annoy peers with their limitless talk about their interests. They may ask endless questions or give such lengthy and elaborately specific responses to questions that it seems they are unable to stop. One gifted AS child known to the author, when asked who Christopher Columbus was, responded with a dozen sentences detailing his genealogy.

Hypersensitivity to sensory stimuli is also not uncommon in both groups of children. Parents of gifted and AS children alike often can tell stories of their child's adamant refusal to wear certain kinds of materials, to eat foods of a certain texture, to recoil or run at the sound of noises they find particularly abrasive, or to refuse some kinds of touch.

AS children are described as having quite a range of abilities, as are gifted children. It was Asperger's observation that all children with the disorder seem to have "a special interest which enables them to achieve quite extraordinary levels of performance in a certain area" (p. 45). This interest is similar to the way in which gifted children are said to have "passions" (Betts & Kercher, 1999; Torrance, 1965). While they may demonstrate extraordinary skill in selected areas, both AS children and gifted children may perform in the average range in other areas (Baum, Owen, & Dixon, 1991; Wing, 1991). Both the gifted and the AS child are described as experiencing uneven development, particularly when cognitive development is compared to social and affective development at a young age (Altman, 1983; Asperger, 1991; Hollingworth, 1942; Silverman, 1993).

Table 1

Proposed Characteristics to Differentiate Ordinary Gifted Children from Gifted Children with Asperger's Syndrome

Differentiating Characteristic	Ordinary Gifted	Gifted with Asperger's Syndrome
Speech Patterns	Normal, but may have language of older child	Pedantic, seamless speech
Response to Routines	May passively resist, but will often go along	Very low tolerance for change, agitation, aggression
Disturbance of Attention	If disturbance exists, it is usually external	Disturbance is internal
Humor	Engages in socially reciprocal humor	Can do word play, but typically doesn't understand humor that requires social reciprocity
Motor Clumsiness	Not characteristic of most gifted children	50-90 % of Asperger children manifest
Inappropriate Affect	Not a characteristic	Nearly always observed
Insight	Insight usually good	Usually remarkably absent
Stereotypy	Not a characteristic	May be present

Distinguishing Normal Giftedness From Asperger's Syndrome

Several similarities between gifted children and children with AS have been noted. Some of the distinguishing criteria are listed in Table 1. One distinguishing characteristic may be found in speech patterns. AS children, like ordinary gifted children, can evidence fluent speech that seems characterized by original and analytic thinking. Although both groups of children can be highly verbal, AS children are typically pedantic, while normal gifted children are not. Frith (1991) suggested a distinction may be made by the seamlessness of the speech. AS individuals may demonstrate seamless mixtures of knowledge and personal accounts in their written or oral responses to questions. They run on and on, blending content, personal reflections, and autobiographical illustrations. They do so perhaps because they are not aware of the purpose of the questions.

A second difference lies in how they respond to routines or structure. Although both are sometimes described as resistant to routine at home or school, ordinary gifted children are not nearly as rigid about routines as some AS children are. Also, gifted children, as a rule, do not have the kinds of difficulties coping with change that AS children have. AS children can have great difficulty with the lockstep scheduling and routine of traditional classrooms, and they may refuse to cooperate with common learning tasks of school. Gifted children may express displeasure about routines and may passively resist them, but they are not as likely to panic or become aggressive as are AS children. Although both the gifted and the Asperger learner may complain about schedules and procedures, the latter is more likely to become obsessive about it (Barron & Barron, 1992; Clark, 1992; Klin & Volkmar, 1995).

There is also a difference in the whimsical behaviors that characterize AS children and some gifted children. Margaret Dewey (1992) wrote of the differences between autistic eccentricity and "garden variety eccentricity." Her observations may be useful to those trying to draw a line between normal gifted behaviors and AS behaviors. She noted that the normal eccentric person is aware that others will regard his or her eccentric behaviors as odd, while the individual with AS is not aware. People with AS often have no sense that they have done anything out of

the ordinary. This obliviousness to social conventions is a trademark of the disorder. Several writers trace this obliviousness to the lack of a "theory of mind" (Atwood, 1998).

Theory of mind is akin to metacognition; it refers to knowing what one knows and how one knows it, while simultaneously processing differences in others. Theory of mind also subsumes the ability to take perspective; to be aware of oneself and to take another's perspective at the same time. Children with AS have great difficulty understanding the perspective of others, which is what makes their social adjustment so challenging (Schopler & Mesibov, 1992; Wing, 1981; Wing & Gould, 1979).

The criterion of obliviousness may serve to distinguish gifted children with and without Asperger's above age 7 or 8. For example, AS children may demonstrate excellent selective memory for people or events. Similarly, gifted children may demonstrate superb memory for selected topics of special interest to them. A difference, though, is that children with AS will assume others understand their references and will not be aware that others may find their memory remarkable in any way. In contrast, ordinary gifted children understand that others probably do not share their knowledge of selected topics and that others are surprised by their keen memory (Dewey, 1992).

A fourth distinction between the ordinary gifted child and the AS child has to do with the "disturbance of active attention" (Asperger, 1991, p. 76). Gifted children can have attention difficulties; but, when they do, it is usually because they are distracted by external stimuli. AS individuals are prone to distraction, but it is distraction that comes from within. They attend much less to external stimuli and more to their inner world. This internal distraction usually impairs their school performance.

Quality of humor is a fifth distinction. Gifted children with AS may be creative with word play and may even excel in making puns, but they lack the social reciprocity that underlies most humor (Atwood, 1998; Grandin, 1992; Van Bourgondien & Mesibov, 1987). They don't laugh at things that are funny to most people, and they often don't get the joke. Gifted children, on the other hand, are not characterized by deficits in their ability to understand humor.

Affective expression is the sixth potentially distinguishing feature. Children with Asperger's tend to present as automatons to some degree (Atwood, 1998). Their emotional response is often not what one would expect. It might be flattened or restricted, or they may laugh, get mad, or become anxious inappropriately. Inappropriate affective expression is not a common characteristic of gifted children.

Perhaps the most pronounced feature to distinguish a gifted AS student is his or her remarkable lack of insight and awareness regarding the feelings, needs, and interests of other people. An AS child will talk interminably in a monotonous or pedantic tone about a favorite topic, unaware that the listener might not be interested, needs to leave, is bored, or wants to say something. AS children will also interrupt private conversations and enter or leave abruptly without concern for the wishes or needs of others. They seem oblivious to the simplest rules of social conduct, and repeated efforts to instruct them or remind them do not change these behaviors. A pronounced lack of social awareness is not a common characteristic of ordinary gifted children. It is this struggle to understand the simplest social guidelines that frequently makes active participation in secondary gifted programs such a challenge for gifted students with AS (Szatmari, Bartolucci, & Bremner, 1989; Tantam, 1988; Wing, 1992; Wing & Gould, 1979).

The difficulties of identifying gifted AS individuals are compounded by the variations found among AS children. Stereotypy, for example, is observed in some, but not all AS children. Twisting hands, opening and closing a book, rocking, knocking, and whirling are examples of stereotypy that are sometimes, though not always, observed in AS children. When stereotypy is observed in a gifted child, however, a diagnosis of AS or another pervasive developmental disorder may be warranted and merits further examination (APA, 1994).

Identifying Gifted Children with Asperger's Syndrome

It is imperative that gifted children with AS be diagnosed so that they can effectively secure appropriate services. Parents and teachers may agree that "something is wrong," but not know what. Identifying these students only as gifted or learning disabled is not as effective and can contribute not only to misunderstandings about the true nature of the child's difficulties, but also to the formulation of an inappropriate educational plan (Barron & Barron, 1992; Dewey, 1991; Grandin, 1992; Klin & Volkmar, 1995; Levy, 1988; Minshew, 1992; Schopler, 1985).

To identify AS in gifted children, two things are needed: a thorough developmental history and insight into the motivation behind certain behaviors (Atwood, 1998; Levy, 1988; Tsai, 1992). Without these two, there is a danger that AS will be over- or under-diagnosed. Symptoms of the disorder in a gifted child may be mistakenly attributed to the child's giftedness, rather than to the disorder. At other times, an AS child's giftedness may be discounted or considered irrelevant to his or her development.

Accurate diagnosis of AS in gifted children requires the participation of an experienced, interdisciplinary team. Parents should be actively involved in the assessment since developmental history is so important to confirming or ruling out the diagnosis. Table 2 provides the diagnostic criteria for AS from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994).

Tony Atwood (1998) explained that, in addition to the developmental history, a diagnostic evaluation will usually include some formal testing, an assessment of movement skills, observations of the child's social reciprocity in situations engineered to elicit a variety of specific behaviors, and observations of the child's pragmatic use of language. Readers interested in a more comprehensive discussion of diagnostic tools and procedures are referred to his work.

Table 2

The American Psychological Association's (1994) Diagnostic Criteria for 299.80 Asperger's Disorder

- A. Qualitative impairment in social interaction, as manifested by at least two of the following:
 1. marked impairment in the use of multiple nonverbal behaviors, such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction;
 2. failure to develop peer relationships appropriate to developmental level;
 3. a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of sharing, bringing, or pointing out objects of interest to other people); and
 4. lack of social or emotional reciprocity.
- B. Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
 1. encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus;
 2. apparently inflexible adherence to specific, nonfunctional routines or rituals;
 3. stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements); and

4. persistent preoccupation with parts of objects.
- C. The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning.
 - D. There is no clinically significant delay or general delay in language (e.g., single words used by age 2, communicative phrases used by age 3).
 - E. There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behavior (other than social interaction), curiosity about the environment in childhood.
 - F. Criteria are not met for another specific Pervasive Developmental Disorder or schizophrenia.

Unlike autistic children who often receive special assistance in schools, the bright AS student may be left to manage the best he or she can. Relationships with teachers and peers can be extremely difficult. Over time, such children may become depressed as a result of their social isolation. Severe anxiety states can also be present. Until very recently, educators often did not know how to help the AS student, and some gifted students with the disorder were finding that they could not participate in their school's gifted program because no one knew how to make the necessary accommodations. Fortunately, great gains have been made in our knowledge in just the last few years, and we can now recommend specific instructional and behavior management strategies that should facilitate the inclusion of gifted children with AS (Atwood, 1998; Cumine, Leach, & Stevenson, 1997; Freeman & Dake, 1996; Gray, in press) Also, there are several research projects underway at this time that promise to yield yet more data about effective approaches for parenting and teaching the AS child.

Working with the Gifted Asperger's Student

AS children typically have difficulties in three areas: learning, socializing, and behaviors. Klin and Volkmar (1995) and Mesibov (1992) recommended that interventions focus on information, general support, and the management of specific problem behaviors. AS students can benefit by learning compensatory strategies, just as gifted students with learning disabilities do (Baum, Owen, & Dixon, 1991; Klin & Volkmar, 1995; Rourke, 1989). However, the way in which these strategies are taught must take into account the unique characteristics of an AS brain. People with AS are usually strong visual thinkers. They think best in concrete, literal pictures. This can have several advantages, but it is a distinct disadvantage in a classroom where the expectation is that the student think verbally. Frequent use of diagrams, visualization, and pictograms for teaching and managing behavior is widely recommended (Atwood, 1998; Grandin & Scariano, 1996; Gray, in press; Hurlburt, Frappe, & Frith, 1994).

Klin and Volkmar (1995) stressed that parts-to-whole verbal instruction is the most appropriate approach because AS children tend to overfocus on details. Care must be taken to teach strategies in the exact sequence students will need to use them to be successful. Unlike ordinary gifted children, rote styles of learning are recommended for AS children; they enjoy them because their own thoughts and habits are rigid.

Schopler and Mesibov (1992) suggested that a teacher with strong intuitive abilities is more likely to have success teaching a gifted AS child than is the teacher who bases decisions on logical deductions because AS students are often extremely sensitive to the tone with which something is said (Asperger, 1979; Frith, 1991). They respond not so much to what is said to them, but to how it is said. For this reason, it may be wise to keep directives or corrections short and to the point and avoid lengthier explanations that increase the chance that the child will distort the message.

[A]ll educational transactions have to be done with the affect "turned off." The teacher must never become angry nor should he aim to become loved. It will never do to appear quiet and calm on the outside while one is boiling inside. Yet this is only too likely, given the negativism and seemingly calculated naughtiness of autistic children! The teacher must at all cost be calm and collected and must remain in control. He should give his instructions in a cool and objective manner, without being intrusive. (Asperger, 1991, p. 48)

Sensory Integration. Extreme sensitivity to some kinds of sensory stimuli is common among children with AS (Tupper, 1999). Atwood (1998) stated that sound and touch are the most common sensitivities and that, for many of these children, "ordinary sensations are perceived as unbearably intense. The mere anticipation of the experience can lead to intense anxiety or panic" (p. 129). This hypersensitivity causes problems for the children in their adjustment to school.

For example, some AS students don't like the sound of the school bells, and others become aggressively oppositional when the teacher tries to coax them to join the class in an activity that involves touch. Those teaching gifted AS students would do well to respect these sensitivities and work with parents and therapists to teach AS students coping strategies. Some sensory stimuli can be avoided or minimized, but much of it cannot. Wearing silicone earplugs when needed or a headset with music may be enough of a sound barrier to assist some students. Others could benefit from sensory integration therapy to reduce their tactile defensiveness.

Sensory integration is a concept originally developed by Jean Ayres (1979), and it refers to the neurological process of taking in sensory information from the world, combining it with internal sensory information, and making adaptive responses to the environment. Adaptive responses are an essential component of getting through life. Tupper (1999) explained that the world is a constantly changing place to which most people respond spontaneously without thinking much and without a lot of stress. But, for people who misinterpret sensory information or who interpret sensory information slowly, the world is a much less predictable place and, therefore, much more frightening. They lack the means to respond easily. The more severe the sensory integration problem, the less tolerance a person has for stress and change. The individual may withdraw from or aggressively resist situations to keep from becoming overwhelmed. Since we are limited in how predictable we can make the world, we must work to increase their range of reactions—their flexibility. The aim of sensory integration therapy is to move people toward a wider repertoire of skills, "a more organized approach to the world" (Tupper).

Sensory integration therapy is designed to improve integration and reduce sensory sensitivity; it helps people organize, concentrate, attend, and anticipate and prepare for change. It can significantly increase a child's adaptability and flexibility, thus facilitating his or her greater participation in educational programs. It is now believed that there is no age limit on receiving benefits from such therapy, though younger children typically show greater improvement (Ayres, 1979; Tupper, 1999).

Sensory integration therapy is designed by specially trained occupational therapists. It provides sensory experiences that target deficit areas. The goal of sensory integration therapy is to nudge along the development of targeted sensory systems. Some of the exercises can be easily taught to school personnel and parents so that the child can receive the benefits at school and at home. For instance, deep pressure stimulation like joint compressions or hand massage can be provided at school as needed to help the AS child from becoming overstimulated, anxious, or aggressive. Rubbing or brushing exercises are also helpful for some children. Teachers should consult with the occupational therapist in their district regarding the application of these tools for particular students.

Social Skills Training. There is evidence that the AS child's problems with socialization can be improved by social training. However, concrete visual approaches must be used (Atwood, 1998; Mesibov, 1992). Talking about

appropriate behaviors is not effective. Working with a mirror and imitative exercises can help (Klin & Volkmar, 1995), and Grandin (1992) suggested videotaping to teach new behaviors.

Carol Gray's Social Stories and comic strip conversations (Atwood, 1998; Gray, in press) are widely used to help children with all kinds of autism spectrum disorders develop social understanding. Social Stories is a technique to teach the cues and behaviors for specific social situations. It also helps teachers to understand the student's perspective and the reasons behind eccentric or idiosyncratic behaviors. The technique involves writing a very short story that describes a specific social situation with which the child struggles. The stories include four types of sentences: descriptive, perspective, directive, and control. Descriptive sentences explain where, who, and what. Perspective sentences explain the feelings and behaviors of others in the situation. Directives are statements about what the child is expected to do or say. The story concludes with a control sentence that is a statement about strategies the child can use to remember or understand the expected behavior in the social situation. Gray recommends a ratio of one directive and/or control sentence for every 2 to 5 descriptive and/or perspective sentences. The following is an example of a social story written for an AS child who is trying to understand popular figures of speech:

Sometimes my friend, Toni, tells me to "chill" [descriptive]. This means I am getting loud and bossy [descriptive]. Toni doesn't want to sit with me when I am loud and bossy [perspective]. I will lower my voice when Toni tells me to "chill" [directive]. When Toni says "chill," I can imagine putting my voice on ice [control].

These students can be aided by some education about emotionality and by explanations about the perspectives of others. Education that includes validating and clarifying what is typical for people with AS can reduce anxiety and promote self-understanding. If there is trust with adults, the child is more likely to accept feedback (Klin & Volkmar, 1995). Mesibov (1992) recommended taking an active, directive, and structured approach.

Behavior Problems. Children with AS usually have some behavior problems. They may be compulsive or hyperactive. They may be prone to tantrums or aggressive outbursts. They may routinely hit other children without provocation or touch people in inappropriate ways. Some AS children suffer from anxiety attacks or specific phobias. They may be sensitive to teasing, but consistently demonstrate provocative behaviors that invite teasing. Some AS children will engage adults in endless arguments if given the opportunity. Parents especially may find themselves trapped in repeated discussions about the same events or disagreements. Adults should not attempt to reason for more than a minute with such children (Barron & Barron, 1992; Dewey, 1991; Klin & Volkmar, 1995). Brief, concrete directives are most effective. Visual supports like pictograms can be posted on a child's notebook, desk, or on the wall to visually cue the child regarding expected behaviors. The addition of visual supports can be remarkably effective in helping AS students organize their behavior. Teachers and parents should consult with an augmentative communication specialist to learn more about visual supports.

In addition to behavioral and educational approaches, medications may be helpful in treating specific problematic behaviors. Medications can significantly improve the quality of life of AS children when they exhibit compulsive or aggressive behaviors that interfere with school adjustment or family life. Medication may also be needed to alleviate symptoms of depression, thought disorder, or anxiety attacks. Tofranil and Prozac have been recommended (Grandin, 1992). Beta blockers have been helpful for some aggressive AS children, and Anafranil, Luvox, or one of the SSRIs (e.g., Zoloft) can be useful in reducing obsessive-compulsive tendencies (Gragg & Francis, 1997; Rapoport, 1989).

Conclusion

Parents and educators may attribute the difficulties gifted AS students have in school to a poor match between the curriculum or pedagogy and the child's learning needs. They may mistakenly put all the focus on the child's giftedness and fail to identify AS. In addition, the social deficits of some gifted children may be attributed to their giftedness or to a learning disability when a diagnosis of AS would be more appropriate. The school is sometimes blamed for not understanding and accommodating the unique needs of the gifted learner when, in fact, the problem is that the child's disorder has not been identified or addressed.

Accurate diagnosis is necessary to obtain appropriate assistance. The social skills training that benefits AS children is different from the social skills training that benefits children with other kinds of learning problems (Guevremont, 1990; Klin & Volkmar, 1995; Mesibov, 1992; Wing, 1992). Accurate diagnosis increases the chance that students will receive appropriate services and have maximum opportunity to realize their potential.

There has been tremendous interest and a surge of research and publications about AS in the last five years, but giftedness is rarely mentioned (Cash, 1999a; 1999b). Fortunately, there are studies underway that will improve our understanding of gifted children with the disorder (Henderson, 1999). Many excellent resources are available online and in print for educators and parents who want more information about how to effectively teach the child with AS. Barbara Kirby's website (<http://www.udel.edu.bkirby/asperger.html>) and the Yale Child Study Center's website (<http://www.info.med.yale.edu/chldstdy/autism.html>) are two comprehensive sites. Kirby's site includes sample IEP goals, forms, and check lists to be used with AS students.

ASPEN (Asperger's Syndrome Education Network) is a national organization recently formed to provide support and information to individuals with neurological disorders like Asperger's, High Functioning Autism, and Pervasive Developmental Disorder Not Otherwise Specified. They provide a helpline at (904) 745-6741, and they publish a quarterly newsletter for members. Their excellent website (<http://www.asperger.org>) provides an annotated list of the latest publications about the disorder, as well as helpful links to other sites.

Able autistic individuals can rise to eminent positions and perform with such outstanding success that one may even conclude that only such people are capable of certain achievements. It is as if they had compensatory abilities to counterbalance their deficiencies. Their unswerving determination and penetrating intellectual powers, part of their spontaneous and original mental activity, their narrowness and single-mindedness, as manifested in their special interests, can be immensely valuable and can lead to outstanding achievements in their chosen areas. We can see in the autistic person, far more clearly than with any normal child, a line of work often grows naturally out of their special abilities (Asperger, 1991, p. 88).

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Comments

Contributed by: Parent on 12/1/2008

I too had extreme difficulty convincing his school, that my son needed services for special needs, although he was above average and sometime beyond his age, that he didn't qualify for help because he excelled academically. I too fought the school district for 6 years until my son started receiving the help that he so desperately needed. Finally the help came but with only my persistence, as well as doctors notes, and diagnosis it finally worked. Don't give up hope. The school district has been tremendously helpful and willing to go the extra mile for my son. This article is a very informative article. thank you.

Contributed by: Parent on 11/6/2008

Thank you for this article. As a parent with a child extremely bright but with behavior problems, this makes me understand him more every single day more. Thank you again.

Contributed by: Parent on 1/17/2008

Great article. I have a gifted child with Aspergers and for years we struggled to get services, because the Board of Ed didn't understand why a child with such strong academic abilities needed services.

Contributed by: Parent on 1/2/2008

My son's problems are more extreme than those described here (HFA/profoundly gifted with severe behaviour problems) but this article was the first I've found that even recognises children like him exist! Thank you.

Contributed by: Parent on 3/30/2005

Thank you - a great piece for the parent hearing AS and gifted for the first time.

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