



Teaching Threads

Understanding the Misunderstood

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This document compliments a presentation I made on Autism Spectrum Disorders in Early Childhood which is posted on my website sharonmaroney.net. I have updated this info to reflect current findings and diagnostic practices.

Person-First Language is always preferred when talking or writing about individuals with disabilities or differences. The focus must be on the individual first and not their disability. Therefore, preferred language includes -

- A child with autism, not ~~an autistic child~~
- Children with autism, not ~~autistic children~~
- A teacher of students with autism, not ~~an Autism teacher~~
- A classroom for students with autism, not ~~an Autism classroom~~

Autism Spectrum Disorders /ASDs

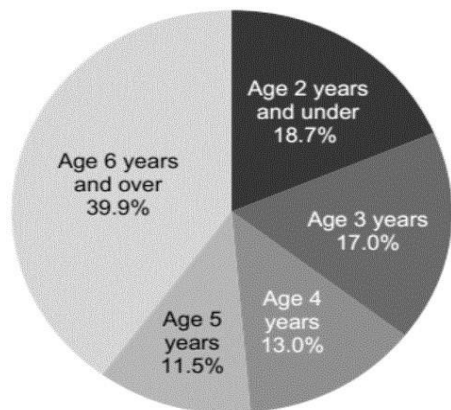
- In the past ASDs included four distinct disorders: Autistic disorder, Asperger's syndrome, Childhood disintegrative disorder, and Pervasive-developmental disorder-not otherwise specified.
- Since the publication of DSM-5 in 2013, the term ASD is used exclusively. The focus is on the existence and severity of definable characteristics.

When is an ASD Diagnosed?

Approximately 1 in 68 children
(1 in 42 boys and 1 in 189 girls)
in the US are identified as
having an ASD (2014)

The Causes of Autism. While several possible causes of autism have been identified, in most cases the exact cause cannot be determined.

- Neurological Causes
 - Structural + functional differences in the brain
 - Differences in rate of brain growth
- Genetic Causes
 - Research suggests that from 1 in 10 to 1 in 5 siblings of children with an ASD will also have an ASD
 - Genetic mutations
- Environmental Toxins
 - Pregnant women's exposure to harmful chemicals, drugs, and/or infection



Characteristics. While significant differences exist in which characteristics and to what degree are displayed by each individual with an ASD, it is valuable to note the characteristics that are used to identify this group.

Global Characteristics of Autism include:

- Socialization deficits
- Communication deficits
- Repetitive or Inflexible Behaviors
- Self-stimulation behaviors (SSBs)

If you have met one person with an ASD, then you have met one person with an ASD. The next person you meet will display very different characteristics.

Additional info on characteristics is presented in the video, *What is Autism? Do You Know the Signs?* By Behavior Frontiers (14 mins) <http://www.youtube.com/watch?v=lbXjW-cX9kQ>

Global Characteristics of Asperger's Syndrome include:

- Socialization difficulties
- Communication difficulties
- Repetitive routines / rituals, inflexibility
- Narrow Interests / Preoccupation

Socialization

Individuals with Autism

- May seem aloof, not interested in others
- May not seek social connection/affection from others

Individuals with Asperger's Syndrome

- May want to make friends but not know how
- May be socially awkward, not understanding social cues
- May not demonstrate empathy, does not recognize the emotions of others or how their own behavior affects others
- May often be neglected, bullied, teased, emotionally vulnerable

Communication

Some Individuals with Autism may not develop any functional speech, others may demonstrate varying degrees of repetitive, symbolic, and/or non-typical language use.

Individuals with Asperger's Syndrome

- May have normal speech development with difficulties in the use of language, or with unusual speech patterns
- May be limited to the literal understanding of language, therefore may not understand jokes, sarcasm, exaggeration
- May lack spontaneity, ease, and emotion in language ○ May only talk on limited topics
- May not demonstrate the social behaviors required in using language including body movements, facial expressions, gestures
- May not understand that different types of language are used in different situations

Repetitive routines / rituals, inflexibility

Individuals with Autism

- May rigidly follow non-functional routines
- May have inflexible obsessions and/or extremely limited interests

- May be obsessed with parts of objects rather than the entire object
- May display inflexible and repetitive body movement
- Interruption in routines or obsession may cause extreme tantruming behavior

Individuals with Asperger's Syndrome

- May display characteristics similar to children with autism, but less severe or less unusual
- May need to follow routines, showing great difficulty with change
- May follow routines designed to accomplish a task, where as some routines for children with autism do not appear to have a function

Narrow Interests and Preoccupation

Individuals with Autism and Asperger's Syndrome

- May show a great interest in one or few objects/activities/topics to the point of ignoring all other objects/activities/topics
- For example may play only with trucks, talk only about trucks, read only about trucks, want to learn only about trucks
- May gain impressive knowledge and/or skill in their area of interest
- This quick video shows this concept in *4 year old and numbers* (1 minute)
<http://www.youtube.com/watch?v=myZADof-yio>

Self-Stimulatory Behaviors (SSBs) - Automatically reinforcing behaviors

Some individuals with ASDs display self-stimulatory behaviors

- To reward themselves through one or more senses, without involving another person
- Students may engage in SSBs through
 - Body movements - jumping, hand flapping, toe walking, spinning, blinking
 - Visual sensations - eye gazing, peripheral eye gazing, gazing at hands, watching objects spin, flap, blink, move
 - Auditory sensations - verbally repeating sounds
 - Oral sensations - playing with saliva, putting fingers or objects in mouth, grinding teeth
 - Tactile sensations - repeatedly touching specific material or object
 - Olfactory sensations - smelling objects or hands

Additional Characteristics of Individuals with Autism and Asperger's Syndrome in Toddlers

- Coordination may be advanced or delayed
- May show delays in pointing for desired object or sharing enjoyment
- May show extreme sensitivity or non-typical lack of sensitivity to specific stimuli - sound, pitch, light, movement, touch, taste, texture, color
- *This segment of 60 Minutes* (2011) presents info on Diagnosing Early Signs of Autism (13 mins)
 - <http://www.youtube.com/watch?v=zVgPlURSad8>

Autism in the Family

- Research suggests that from 1 in 10 to 1 in 5 siblings of children with an ASD will develop the disorder.
- Parents who have a child with an ASD have about a 1 in 5 chance of having a second child with an ASD

- Meet a *Family with Six Children with Autism* in this Good Morning America segment (6 mins) - <http://www.youtube.com/watch?v=308fVgCVnA0>

Additional Videos on ASDs

- Parent video for teacher
 - <http://www.youtube.com/watch?v=WE6Rs8J9cRE>
- Pre-K Class for children with autism
 - <http://www.youtube.com/watch?v=N-o7UIBTuaY>
- 5 year old + solar system (2 mins)
 - <http://www.youtube.com/watch?v=Uf6liqsTQI4>
- Children explain Asperger's syndrome
 - <http://www.youtube.com/watch?v=p23W7uawcjl>

Diagnostic Criteria for Autism Spectrum Disorder according to the DSM-5, 299.00 (F84.0)

- A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive):
 1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions.
 2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.
 3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.
- B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive):
 1. Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases).
 2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal behavior (e.g., extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat food every day).
 3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interest).

4. Hyper- or hyporeactivity to sensory input or unusual interests in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).
- C. Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life).
 - D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.
 - E. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.

Note: This info was adapted from [AutismSpeaks.org](https://www.autismspeaks.org)

<https://www.autismspeaks.org/what-autism/diagnosis/dsm-5-diagnostic-criteria>

Asperger's Syndrome Symptoms in Toddlers

Toddlers, approximately ages 1 to 4, may not show specific symptoms, but certain behavioral abnormalities may be noted

- **Communication**— Unlike toddlers with autism, a toddler with Asperger's generally does not experience difficulties in language development and speech. Vocabulary is often advanced in toddlers with Asperger's, though as language develops, moms and dads may notice that the youngster has difficulty properly using their vocabulary. Toddlers may talk incessantly about one subject, without acknowledging the listener.
- **Delayed Concept of Joint Attention**— The idea of joint attention is the rather abstract concept that two individuals (e.g., the toddler and his parent) can be focused on the same thing. An example of joint attention is looking at a picture in a book together. A toddler with Asperger's may have a hard time getting this concept.
- **Delayed Pointing**— One of the developmental milestones of the first year

of life is to be able to point to a desired object. By one year of age, a youngster will probably be pointing to objects that interest him. However, a toddler with Asperger's may not reach this milestone until later.

- **Delayed Use of Gestures**— Actions such as waving or giving a toy when asked seem like simple tasks. However, to a youngster with Asperger's, these simple gestures may not occur "on schedule" and may instead be delayed. This is because such gestures involve interaction between the youngster and another individual; such social interactions are difficult for the youngster with Asperger's.
- **Motor Skills**— Problems with motor skills are a common symptom of Asperger's. Delayed learning in playing catch, potty training, learning to ride a bike or walking on tip toes are usually noticeable in kids by the age of 3. Their movement may be

described as clumsy or uncoordinated. While symptoms are sometimes noticeable as early as infancy, many moms and dads sense something different about a youngster with Asperger's by the youngster's 3rd birthday. In some cases, early language skills are retained, but the lag in motor development may be the first sign that something is different than "typical" 3-year-old behavior.

- **Nonverbal Communication**— Abnormalities in nonverbal communication are often apparent in kids with this condition. A lack of eye contact may occur accompanied by limited facial expressions which correspond with words the toddler is speaking. The youngster may also exhibit unusual body movements and gestures.
- **Preoccupation**— One of the most apparent symptoms of Asperger's in toddlers is their intense interest in a single topic, such as trains or maps. Kids with Asperger's want to know and spend a lot of time trying to learn about their hobby or interest, and they may use an advanced vocabulary and exhibit a high level of expertise on the subject. Some Asperger's toddlers need to establish rigid repetition and routine in their daily activities.
- **Reading**— Toddlers with Asperger's are often not diagnosed until later in childhood as they sometimes learn to read very early. The perceived advancement overshadows the fact that the youngster with Asperger's often cannot comprehend the words he is reading.
- **Repetitive Behaviors**— Repetitive interests and behaviors are defining components of the diagnosis of Asperger's. However, repetitive interests are actually quite normal in toddlers. While it is very difficult to determine with such young kids, some signs that behaviors and interests have crossed the line from "normal toddler who loves trucks" to "concerning toddler who seems too wrapped up in trucks" may be noted. These include a very specific interest (e.g., not just "trucks" but "the front bumper of trucks"); an interest that is

unusual compared to his peers (e.g., a 3-year-old who intensely focuses on brooms); and an inability to shift focus from the area of interest to other things.

- **Sensitivity to Stimuli**— Some toddlers with Asperger's will have an unusual sensitivity to loud sounds or lights. They may also be bothered by other physical stimuli (e.g., they may be sensitive to the way certain clothing or material feels or need their socks to be on their feet in a particular way).
- **Social Difficulties**— Toddler's with Asperger's usually have difficulty in social situations, such as when playing with other kids. This could be due to delayed motor skill development causing clumsiness, notes *Toddlers Today*. The interests of a toddler with Asperger's tend to be very limited, causing the youngster to have a very narrow focus of activities and interests.
- **Social Skills**— A common aspect of Asperger's is demonstrated by poor social interactions. Toddlers with Asperger's may seem to have one-sided social interaction and limited ability to form friendships. Nonverbal behaviors are also notable in these kids (e.g., unusual facial expressions, failure to gesture, aloofness or the inability to make eye contact). These symptoms become more apparent by the age of 3, and most kids are diagnosed between the ages of 5 and 9.
- **Symptoms Related to an Associated Condition**— Though there is still a lot of research that must be done, it seems that children who have Asperger's may be at higher risk for having other disorders. These include ADHD, anxiety disorder, and depression.

Asperger's Symptoms in Older Children

Kids with Asperger's have deficits in three areas: communication, physical coordination and development of a range of interests. Asperger's is an autism spectrum disorder, meaning that it is on a continuum of development disorders that includes classic

autism. Most kids with Asperger's are able to function with less difficulty than those with classic autism. A set of classic symptoms define Asperger's. A youngster with Asperger's may or may not display all of the symptoms listed below.

- **Clumsiness**— A youngster with Asperger's may seem clumsy and drop things. He may fall easily and try to avoid physical games that his peers are playing. He may have odd, repetitious movements or walk stiffly, as though he is in pain.
- **Inadequate Math Skills**— The youngster with Asperger's may have inadequate math skills, but will do well in vocabulary. He may have noted deficits in his ability to learn some subjects, but will speak like an expert about another. Learning abilities may vary greatly from child to child.
- **Lack of Empathy**— Although a youngster with Asperger's is not mean, he may seem to be oblivious to the feelings of others. If someone's pet dies, he may not show sympathy as other kids might. He may seem to be interested in himself only, but does not purposefully do cruel things. He may seem emotionally immature for his age.
- **Limited Non-Verbal Communication**— A lack of eye contact when communicating is a sign of Asperger's. The youngster may have few facial expressions, and he may stare into space while speaking. He may make few gestures while speaking and adopt an odd body posture. He may not watch the facial expressions or body posture of the person who is speaking with him. The youngster with Asperger's may not seem to pick up on humor or any speech that is not direct, such as sarcasm or the use of figures of speech.
- **Obsessive Interests**— Another sign of Asperger's is obsessive interests. The Asperger's child may hone in on one or two topics and devote an extraordinary amount of time to studying them, looking at them or talking about them. This topic may vary, with some examples including an object, a musical score, an animal, the weather,

sports history or visual patterns. He may seem uninterested in any other subjects, and most of the conversations he begins may be about his topic of interest.

- **Unusual Speech**— A youngster with Asperger's may have an unusual speech pattern, as though he is reading what he is saying. His voice may remind you of a robot, or he may have a monotone, as if he is depressed. His speech may seem overly formal or well thought out, instead of spontaneous. Alternatively, he may speak rapidly, without noticing that others speak more slowly.

Autism Early Signs

The signs and symptoms of autism vary widely, as do its effects. Some autistic children have only mild impairments, while others have more obstacles to overcome. However, every child on the autism spectrum has problems, at least to some degree, in the following three areas:

- Communicating verbally and non-verbally
- Relating to others and the world around them
- Thinking and behaving flexibly

The earliest signs of autism involve the absence of normal behaviors—not the presence of abnormal ones—so they can be tough to spot. In some cases, the earliest symptoms of autism are even misinterpreted as signs of a “good baby,” since the infant may seem quiet, independent, and undemanding. Some autistic infants don't respond to cuddling, reach out to be picked up, or look at their mothers when being fed.

Early signs of autism in babies and toddlers

- Doesn't make eye contact (e.g. look at you when being fed).
- Doesn't smile when smiled at.
- Doesn't respond to his or her name or to the sound of a familiar voice.
- Doesn't follow objects visually.
- Doesn't point or wave goodbye or use other gestures to communicate.
- Doesn't follow the gesture when you point things out.

- Doesn't make noises to get your attention.
- Doesn't initiate or respond to cuddling.
- Doesn't imitate your movements and facial expressions.
- Doesn't reach out to be picked up.
- Doesn't play with other people or share interest and enjoyment.
- Doesn't ask for help or make other basic requests.
By 6 months: No big smiles or other warm, joyful expressions.
- By 9 months: No back-and-forth sharing of sounds, smiles, or other facial expressions.
- By 12 months: Lack of response to name.
- By 12 months: No babbling or "baby talk."
- By 12 months: No back-and-forth gestures, such as pointing, showing, reaching, or waving.
- By 16 months: No spoken words.
- By 24 months: No meaningful two-word phrases that don't involve imitating or repeating.

Signs and symptoms of autism in older children

As children get older, the red flags for autism become more diverse. There are many warning signs and symptoms, but they typically revolve around impaired social skills, speech and language difficulties, non-verbal communication difficulties, and inflexible behavior. Basic social interaction can be difficult for children with autism spectrum disorders. Many kids on the autism spectrum seem to prefer to live in their own world, aloof and detached from others.

Socialization

- Appears disinterested or unaware of other people or what's going on around them.
- Doesn't know how to connect with others, play, or make friends.
- Prefers not to be touched, held, or cuddled.
- Doesn't play "pretend" games, engage in group games, imitate others, or use toys in creative ways.

- Has trouble understanding or talking about feelings.
- Doesn't seem to hear when others talk to him or her.
- Doesn't share interests or achievements with others (drawings, toys).

Communication

- Speaks in an abnormal tone of voice, or with an odd rhythm or pitch (e.g. ends every sentence as if asking a question).
- Repeats the same words or phrases over and over.
- Responds to a question by repeating it, rather than answering it.
- Refers to themselves in the third person.
- Uses language incorrectly (grammatical errors, wrong words).
- Has difficulty communicating needs or desires.
- Doesn't understand simple directions, statements, or questions.
- Takes what is said too literally (misses undertones of humor, irony, and sarcasm).

Nonverbal communication

Children with autism spectrum disorders have trouble picking up on subtle nonverbal cues. Understanding the Misunderstood and using body language. This makes the "give-and-take" of social interaction very difficult.

- Avoids eye contact.
- Uses facial expressions that don't match what he or she is saying.
- Doesn't pick up on other people's facial expressions, tone of voice, and gestures.
- Makes very few gestures (such as pointing). May come across as cold or "robot-like."
- Reacts unusually to sights, smells, textures, and sounds. May be especially sensitive to loud noises.
- Abnormal posture, clumsiness, or eccentric ways of moving (e.g. walking exclusively on tiptoe).

Inflexibility

Children with autism spectrum disorders are often restricted, inflexible, and even

obsessive in their behaviors, activities, and interests.

- Follows a rigid routine (e.g. insists on taking a specific route to school)
- Has difficulty adapting to any changes in schedule or environment (e.g. throws a tantrum if the furniture is rearranged or bedtime is at a different time than usual).
- Unusual attachments to toys or strange objects such as keys, light switches, or rubber bands.
- Obsessively lines things up or arranges them in a certain order.
- Repeats the same actions or movements over and over again, such as flapping hands, rocking, or twirling (known as self-stimulatory behavior). Some researchers and clinicians believe that these behaviors may soothe children with autism more than stimulate the objects such as a ceiling fan, or focusing on one specific part of an object such as the wheels of a toy car.
- Preoccupation with a narrow topic of interest, often involving numbers or symbols (e.g. memorizing and reciting facts about maps, train schedules, or sports statistics).
- Spends long periods of time arranging toys in specific ways, watching moving

Common self-stimulatory behaviors:

- Hand flapping
- Rocking back and forth
- Spinning in a circle
- Finger flicking
- Head banging
- Staring at lights
- Moving fingers in front of the eyes
- Snapping fingers
- Tapping ears
- Scratching
- Lining up toys
- Spinning objects
- Wheel spinning
- Watching moving objects
- Flicking light switches on/off
- Repeating words or noises

As always, my intent in presenting these activities is to help teachers answer this question -

What can I do to make it easier for my students to learn and behave?



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