

Autism Awareness

Juvenile Justice Vision 20/20 Conference



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National News

- 1 in 88 (CDC, 2012)

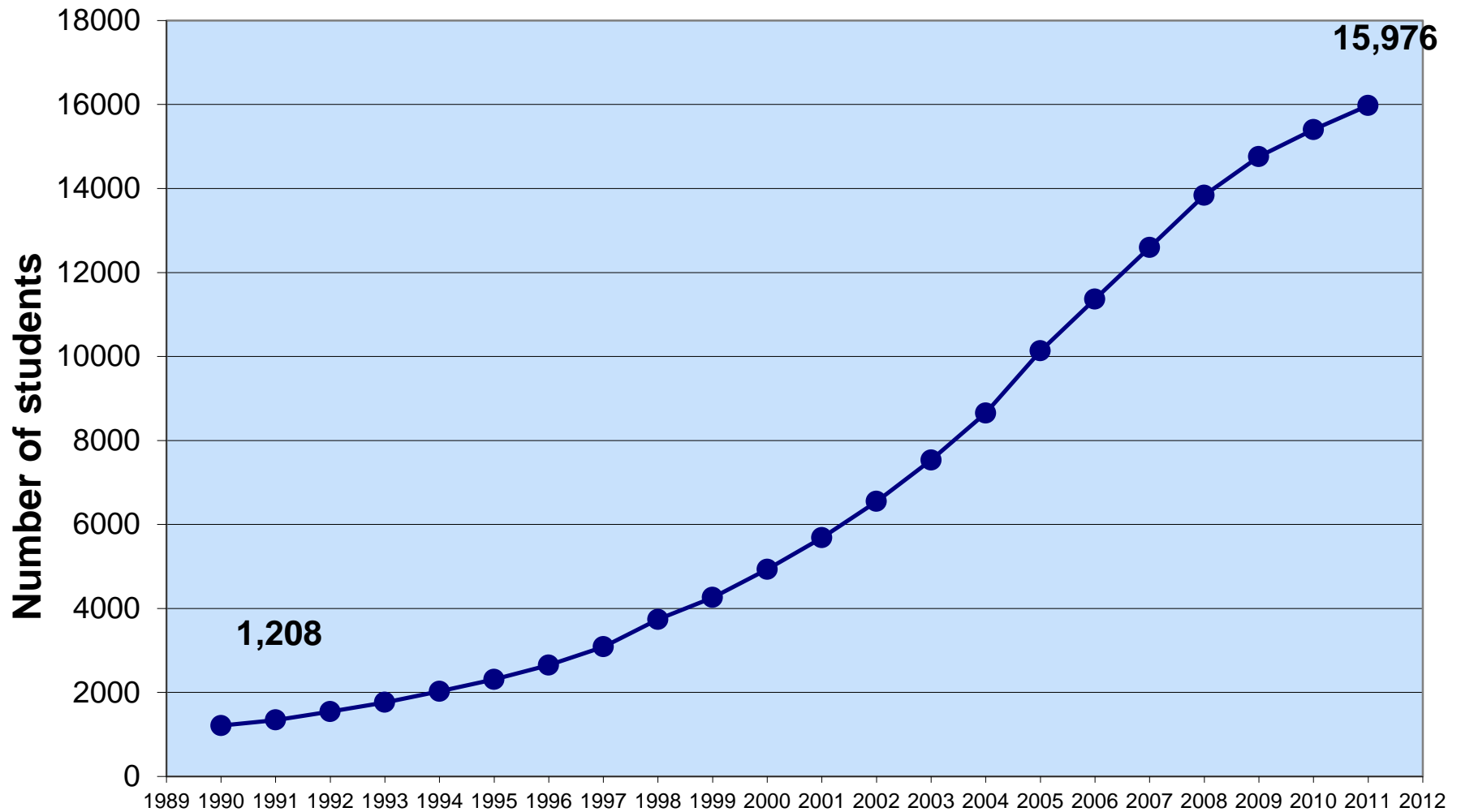


- Call for a National Strategic Plan (Autism Speaks, 2012)



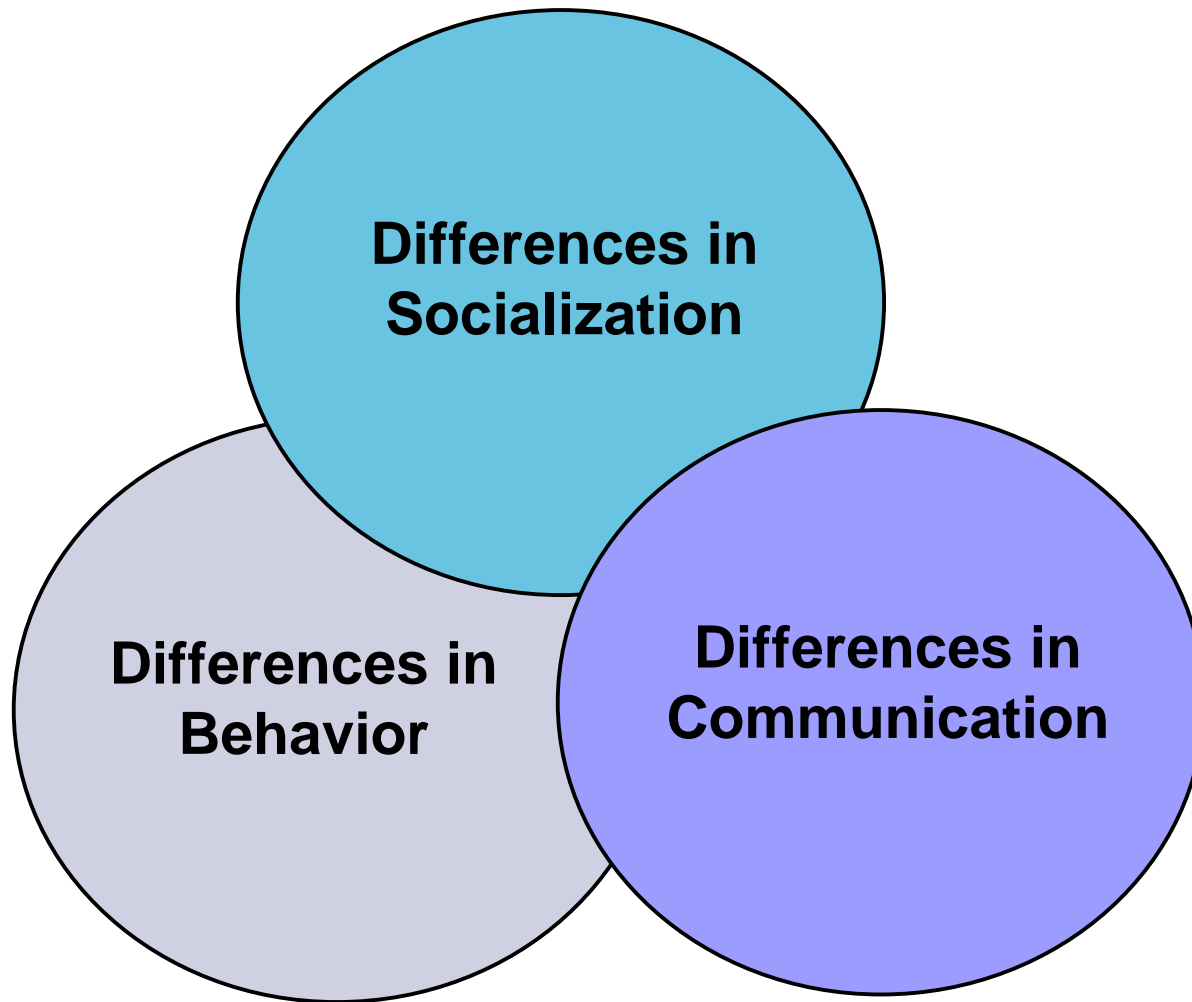
Michigan Students with an ASD Eligibility

* Based on 2011 MDE, OSE Eligibility Count



Pervasive Developmental Disorders

DSM-IV Criteria

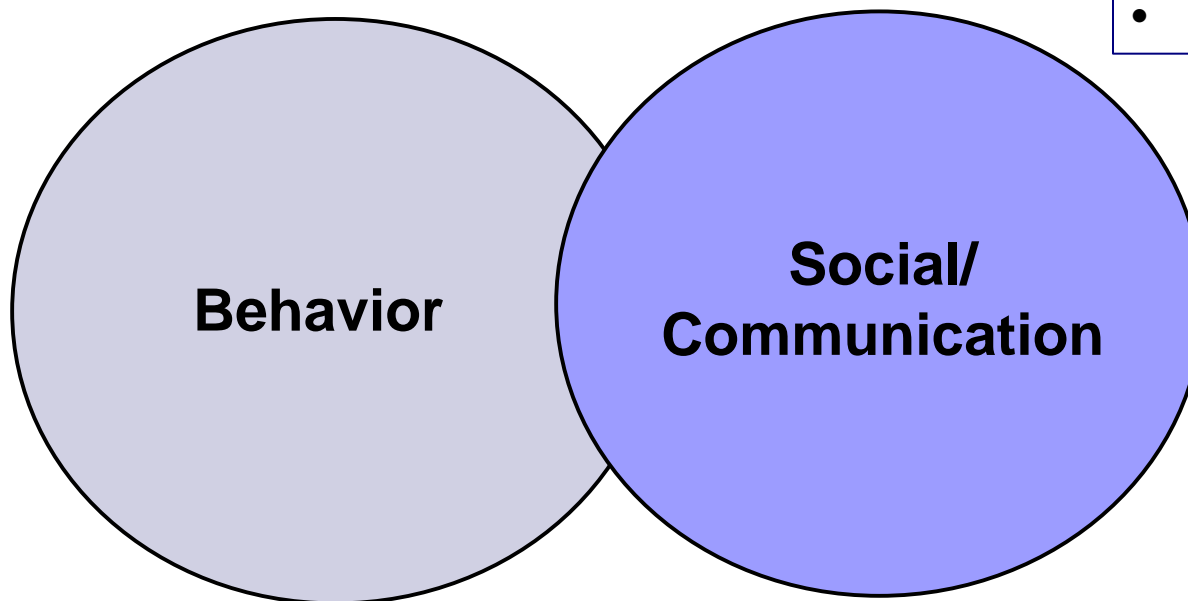


Autism Spectrum Disorder

DSM-5 Criteria

- Stereotyped speech or motor movements
- Insistence on sameness, inflexible adherence
- Fixated interests
- Hyper or hypo-reactive to sensory input

- Social-emotional reciprocity
- Nonverbal communication
- Relationships



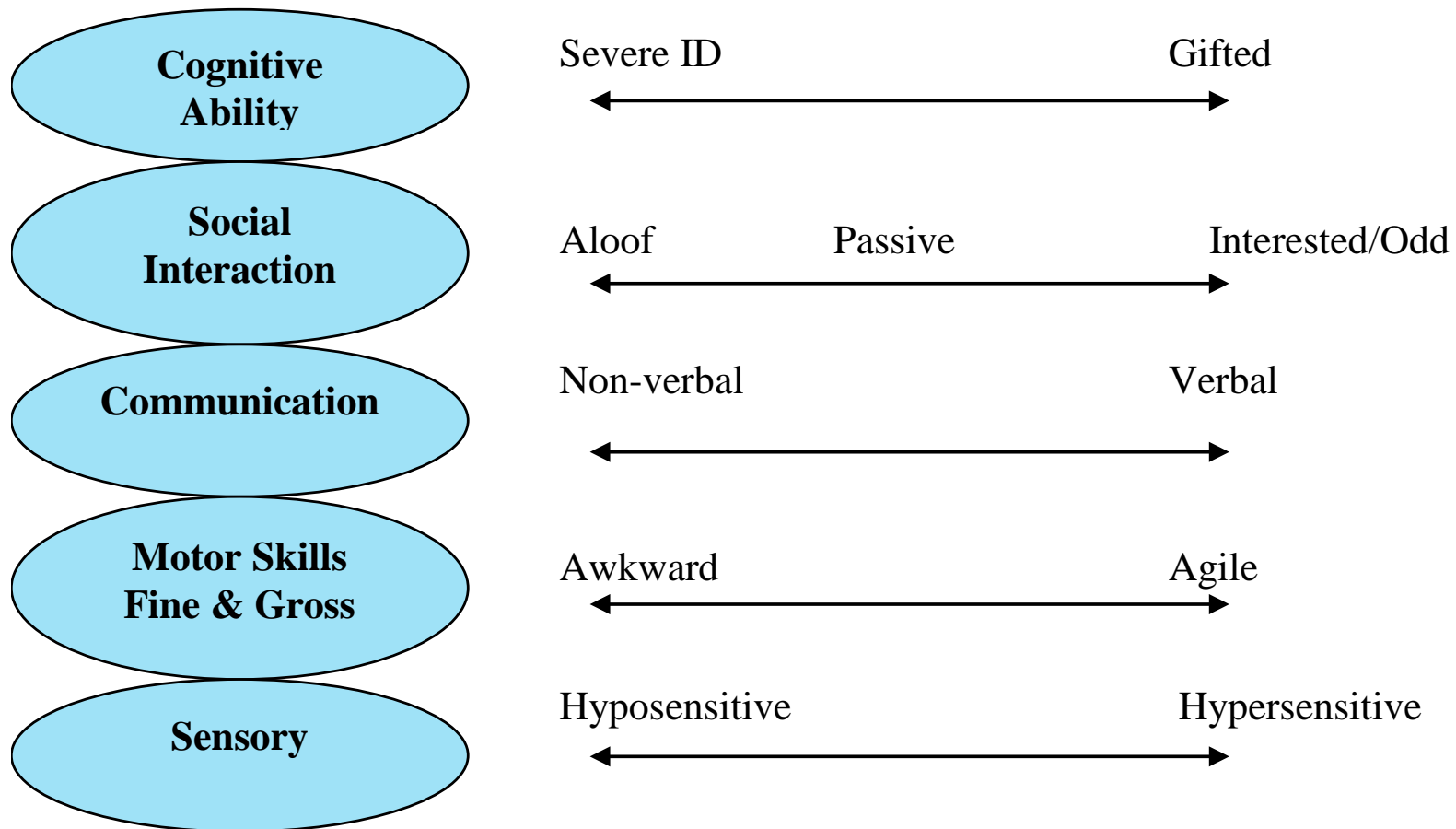


In the DSM-5:

- Autism Spectrum Disorder includes both Autism and Asperger Syndrome



Continuum of the Autism Spectrum





History of ASD Diagnoses

Autism

- First described by Leo Kanner in 1943
- “Obsessive desire for the maintenance of sameness”
- Diagnosis entered DSM in 1980

Asperger Syndrome

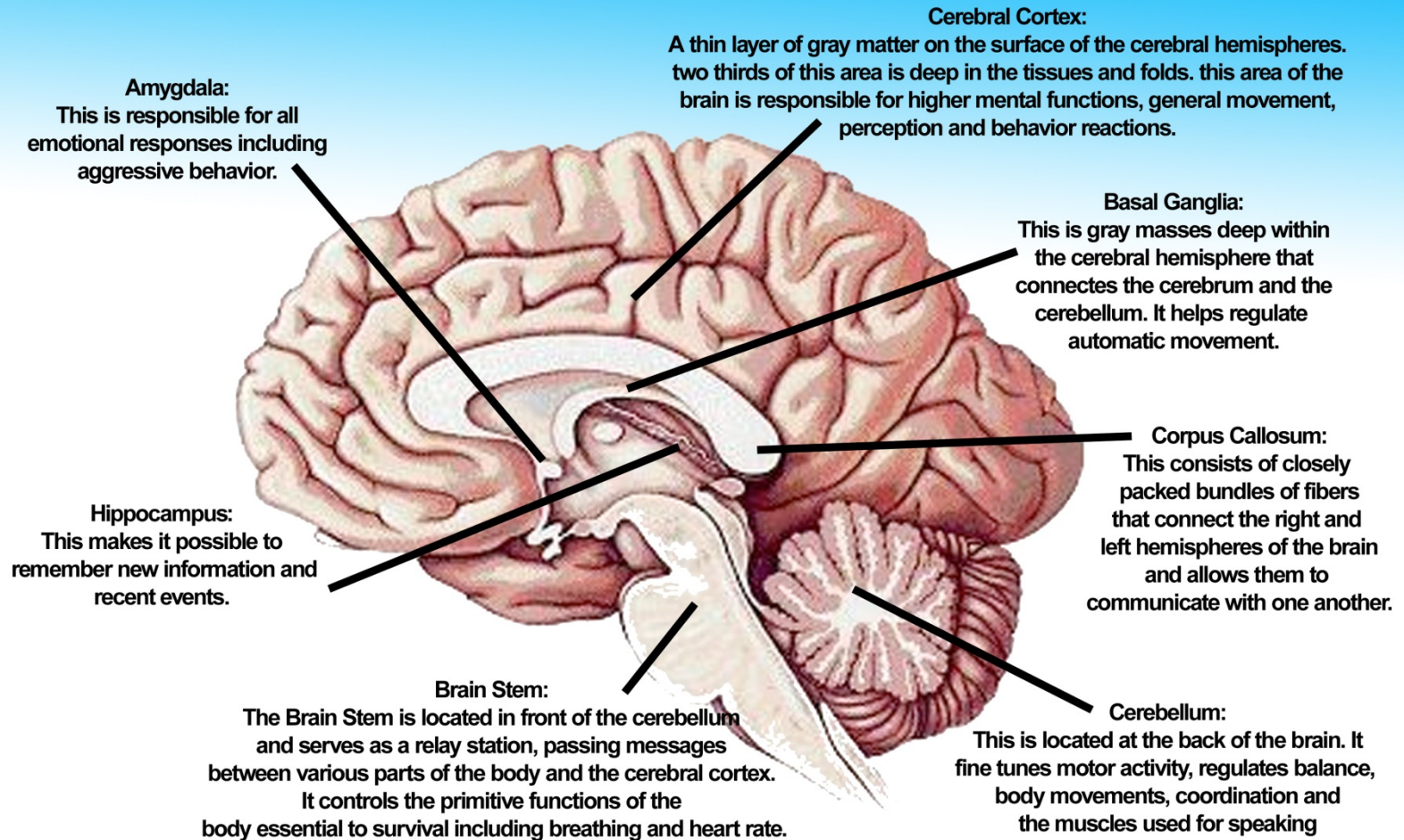
- First described by Hans Asperger in 1944
- “autistic psychopathy”; autistic (self); psychopathy (personality)
- His work was translated into English in 1981; Diagnosis entered DSM in 1994



Wide Range of Abilities & Challenges

ASD is a Brain Disorder

Parts of the Brain Affected by Autism



ASD is a Brain Disorder

- Strong genetic influence
- Differences in brain development may occur as early as the 2nd – 3rd trimester during pregnancy

ASD is a Brain Disorder

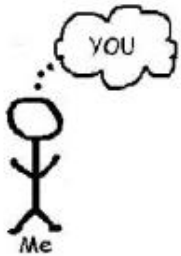
- Unusual activity of genes that control how neurons organize in the developing brain (Geschwind, 2011, *Nature*)
- 67% more neurons in the prefrontal cortex than typical children (Courchesne, 2011, *JAMA*)
- Amygdala differences

Brain Differences Result in Differences in Behavior

“Black and White” Thinking

- Rigidity and adherence to the one, “right” way
- May inhibit creativity, play, social engagement





Social Thinking



- How we think about people affects how we behave, which affects how others respond to us, which affects our own emotions.
- Most of us have developed our social thinking skills from birth by observing and acquiring social information and learning how to respond to people. However for individuals with ASD, this process may not come naturally.

Social Thinking Differences

- Earliest representation – impairments in joint attention



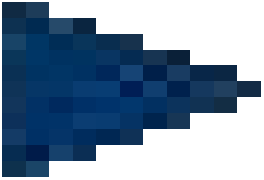
Social Thinking Differences

- Theory of Mind
 - <http://www.youtube.com/watch?v=QjkTQtggLH4>

Social Thinking affects Attributions

- Every day we must guess how people will act, often from small shreds of evidence.
- We do this through a form of social cognition called attribution.
- As we observe others, we make inferences about them. We attribute people's behavior to various causes.
- *Whether we are right or wrong* about the causes of their behavior, our conclusions affect how we act.

Social Attribution Task



Klin (2000). Attributing social meaning to ambiguous visual stimuli... *Journal of Child Psychology & Psychiatry*, 41, 831-836.

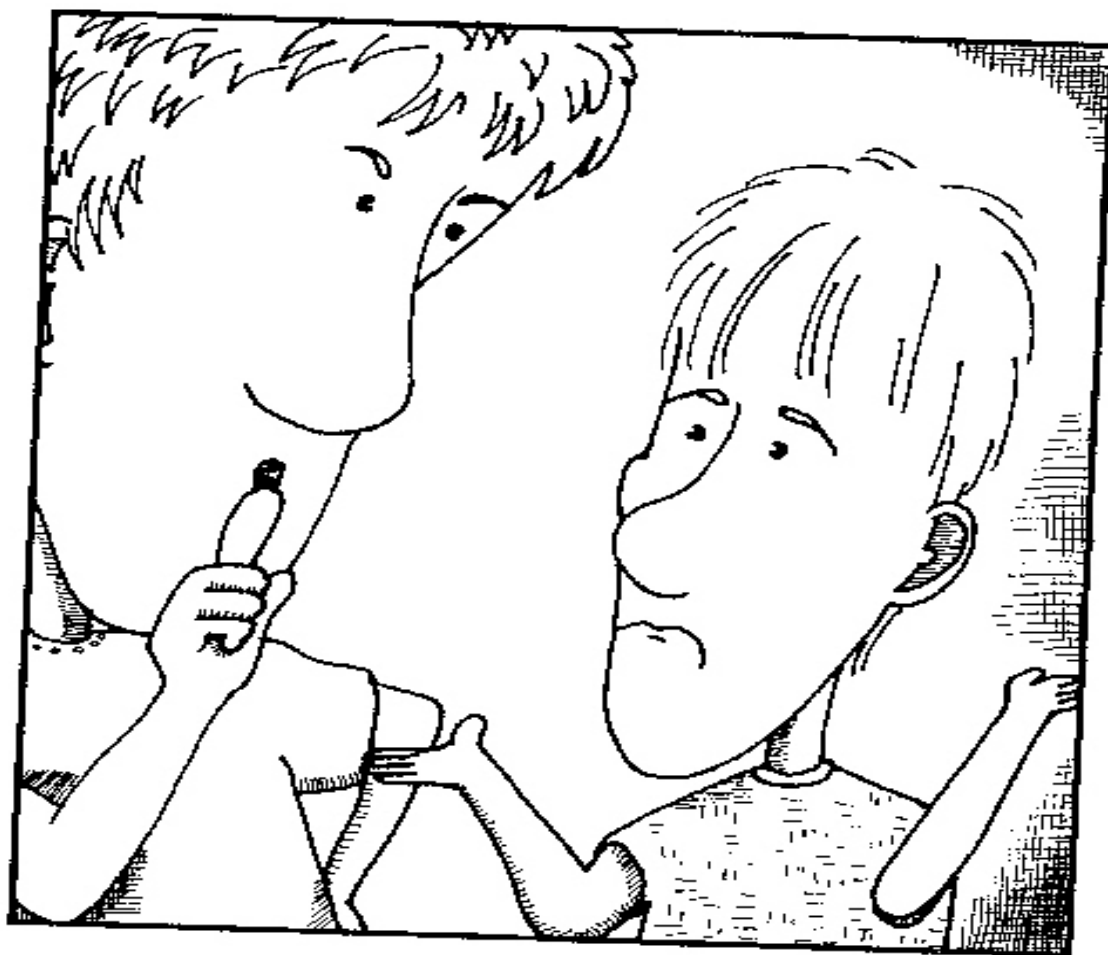
Attention to the Big Picture

- “Weak central coherence”
- May have a hard time knowing intuitively what needs to be done, may not do something unless specifically asked



Social Interactions

- Difficulty using and understanding nonverbal communication; Inability to read social cues could send the wrong signal to others (eye contact, body space)
- May have odd or unique behaviors which causes the individual to become a target for negative responses by others

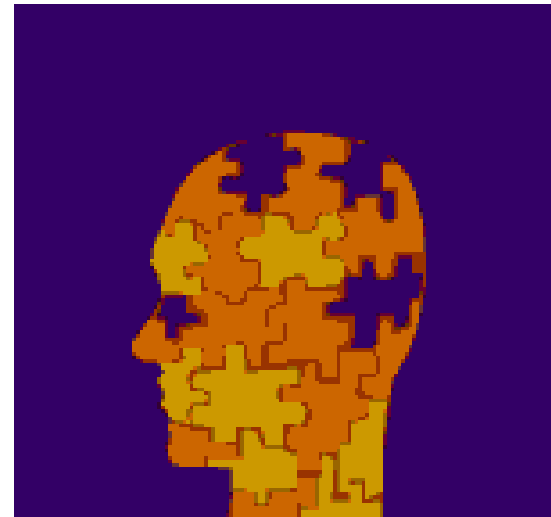


My teacher says I'm rude. I think I'm honest. I don't understand why I can't tell someone that they have bad breath, ugly hair, or to go away because I'm busy.

Social Deficits and Cognitive Skills

“People expect cognition and social functioning to be equally developed. When kids with Asperger’s Syndrome experience difficulty, they [the public] wrongly assume it is deliberate misconduct.”

(A. Klin and F. Volkmar, 1997)



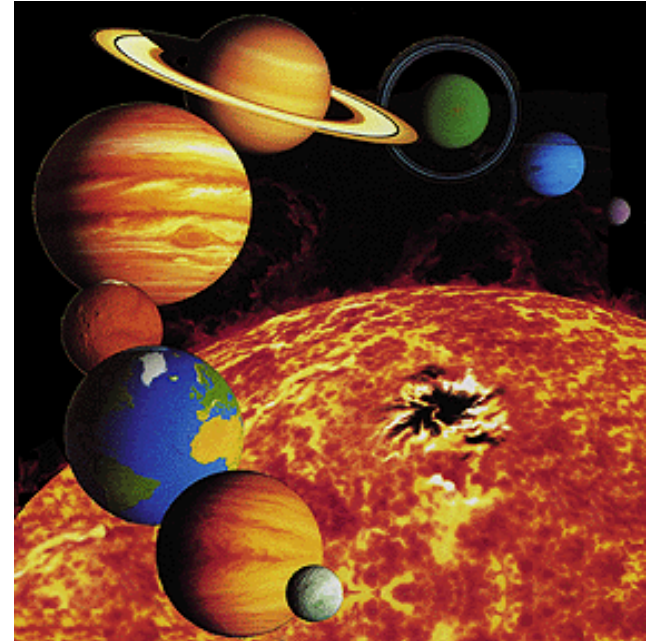
Poor Problem Solving

- What is learned in one situation may not be easily transferred to another
- Executive functioning



Motivation

- High motivation in interest areas; low motivation in other areas
- This is common in most people but occurs at a higher intensity in people with ASD



Stress and Anxiety

- Problems handling stressful situations, multi-tasking, and/or sensory overload



To understand autism, we should
also consider...

“Autism helps to offset the excessive number of boring people here on earth...”

“Autism – it’s not a processing error, just a different operating system”

-- Authors Unknown

- “What would happen if the autism gene was eliminated from the gene pool? You would have a bunch of people standing around in a cave, chatting and socializing and not getting anything done” -- Temple Grandin