

THREE CORE DEFICITS OF ASPERGER SYNDROME

Theory of mind deficit: an inability to recognize that other people have thoughts, feelings and intentions that are different to one's own, and an inability to intuitively guess what these might be

WHAT IS A THEORY OF MIND?

A theory of mind is the cognitive or 'mind reading' process, or ability that we all individually have in order to make sense of the world we live in. Every individual's thoughts, knowledge, beliefs and desires make up his own unique theory of mind. From the age of around 4 years, children understand that other people have thoughts, knowledge, beliefs and desires that will influence their behavior. However, people with autism and Asperger Syndrome appear to have some difficulties conceptualizing and appreciating the thoughts and feelings of others. It is this 'Mind-Blindness' that may impair autistic people as well as people with Asperger Syndrome to be able to relate to and understand the behaviors of others. Mind blindness also means the person has difficulty in distinguishing whether someone's actions are intentional or accidental.

Weak central coherence: an inability to bring together various details from perception to make a meaningful whole

WHAT IS THE CENTRAL COHERENCE THEORY?

Central coherence is the ability to focus on both details as well as wholes. People with autism however, appear to have a heightened focus on details rather than wholes, a cognitive style termed 'weak central coherence'. This is the reason why some individuals with autism have hypersensitive sensory perceptions. This inability to understand wholes resides in the frontal cortex of the brain, which in turn also explains theory of mind deficits in people with autism. The inability to hold information in mind in order to use it later in other tasks is what causes the autistic individual to lack central coherence. Grandin (1995) states: "I cannot hold one piece of information in my mind while I manipulate the next step in the sequence".

PRACTICAL STRATEGIES

- To assess the individual's current skills and needs in order to be able to develop the most appropriate intervention plan.
- To remember to keep a structured timetable.
- To follow the activities in a consistent manner in order to limit any possible confusion or distress.
- To keep instructions simple and clear.
- To be aware of any possible distractions that will affect the individual's performance (e.g. whether acoustic, visual, physical etc.)
- To begin by providing the autistic individual with tasks that he/she finds easy and enjoyable, and then to gradually work on increasing the level of those tasks.

Executive dysfunction: impairment or deficits in the higher-order processes that enable us to plan, sequence, initiate, and sustain our behavior towards some goal, incorporating feedback and making adjustments along the way.

WHAT IS EXECUTIVE FUNCTION?

Executive function can be defined as the way in which people monitor and control their thoughts and actions (Carlson & Moses, 2001). Executive function is actually a broad category that includes such processes like working memory, planning, cognitive flexibility, and inhibitory control. Inhibitory control is one aspect of executive function that is particularly relevant to language development. Inhibitory control is the ability to restrain (or inhibit) potentially interfering responses and to self regulate in certain situations

If we break down the skills or functions into sub functions, we might say that executive functions tap into the following abilities or skills: goal, plan, sequence, prioritize, organize, initiate, inhibit, pace, shift, self-monitor, emotional control and completing.

Excerpt from Michelle Garcia Winner's paper
"Assessment Of Social Skills Through The Exploration Of Social Cognition For Students
High On The Autism Spectrum"

Published in: **Winner, M.** (2002). Assessment of social skills for students with Asperger syndrome and high-functioning autism. *Assessment for Effective Intervention*, 27, 73–80

Defining components of social cognition

Students with ASD are frequently described as having "social cognitive deficits" (Schopler, Mesibov & Kuncze, 1998) which implies that the underlying cognition fails to support the presentation of "appropriate" social skills. This core cognitive deficit appears to be the result of syndrome of weaknesses that would support the development of social cognitive knowledge. A number of theories have significance in understanding genesis of the behavioral outcomes, or social skills of persons with ASD. *Central Coherence Theory* (Frith, 1989; Happe, 1994) speaks to the fact that most persons on the autism spectrum are weak in their ability to conceptualize whole chunks of information; they demonstrate a preference for attending to details and relying on their rote memories to make sense of the ever-changing world around them. A lack of cognitive central coherence or gestalt processing can easily cause a person to miss the importance of the subtle cues that create meaning in a social context including the difficulty of intuitively understanding the main idea of a conversation or a passage in literature. *Executive Dysfunction* (Ozonoff, Pennington & Rogers, 1991; McEvoy, Rogers & Pennington, 1993; Hughes, Russell & Rogers, 1994; Russell, 1997) is similar in that it acknowledges that these students are weak in their ability to orchestrate tasks towards a desired outcome. Executive functioning does not have one definition agreed on by researchers, however, it is generally considered to describe the set of skills an executive would need to stay on top of his or her job; planning, organizing, prioritizing, multi-tasking. Executive dysfunction may make it difficult to maintain a topic in a conversation as the student with ASD has difficulty maintaining a sense of order in his spoken messages often producing tangential responses, he or she may also have difficulty with the organization of written expression or independently planning to complete class assignments. *Theory of Mind (ToM)*, (Baron-Cohen, 1995) establishes that persons with ASD have difficulty considering the perspective of others, such as their emotions, motives and intents. By failing to account for other's perspectives, persons with ASD tend to misinterpret their messages (Tager-Flusberg, 2000). Persons with ASD also tend to talk at length about their own topic of interest because of their difficulty monitoring and responding to the social cues/social needs of their communicative partner. Twachtman-Cullen (2000) indicates many of the social skill deficits observed in persons with ASD may have their genesis in these students lack of ability to decipher subtle meaning from their environment in part due to all of the above mentioned theories; in other words, these students have a *global processing deficit*.