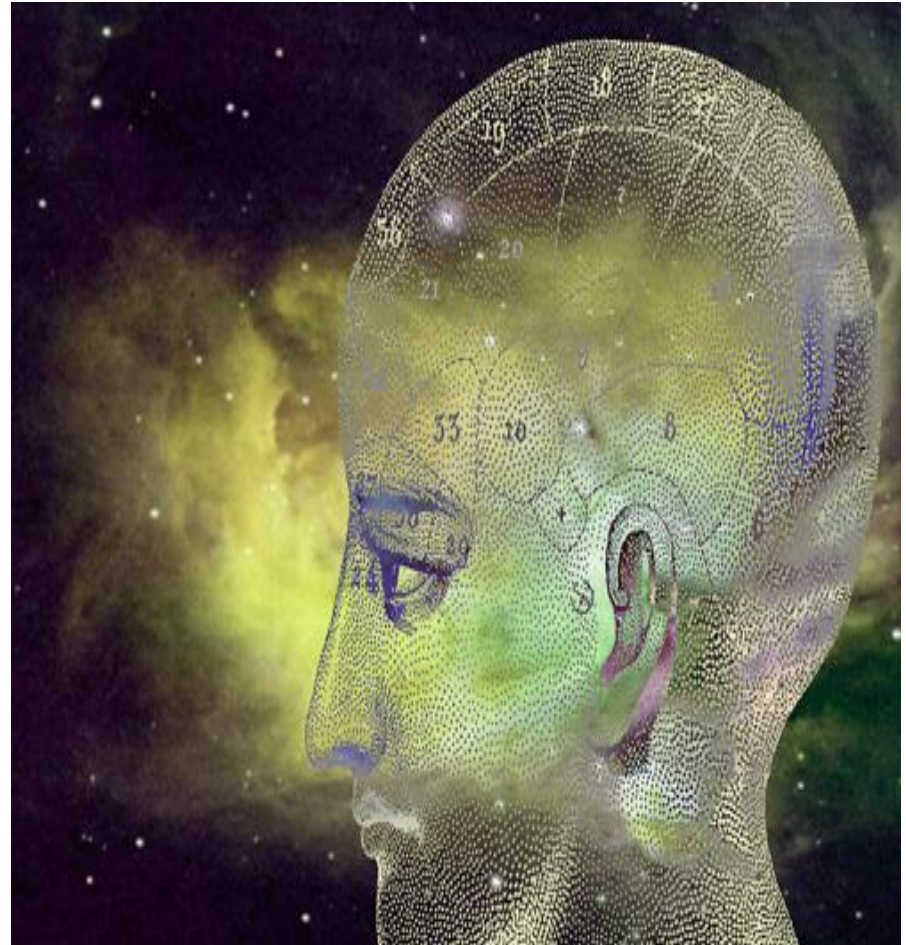
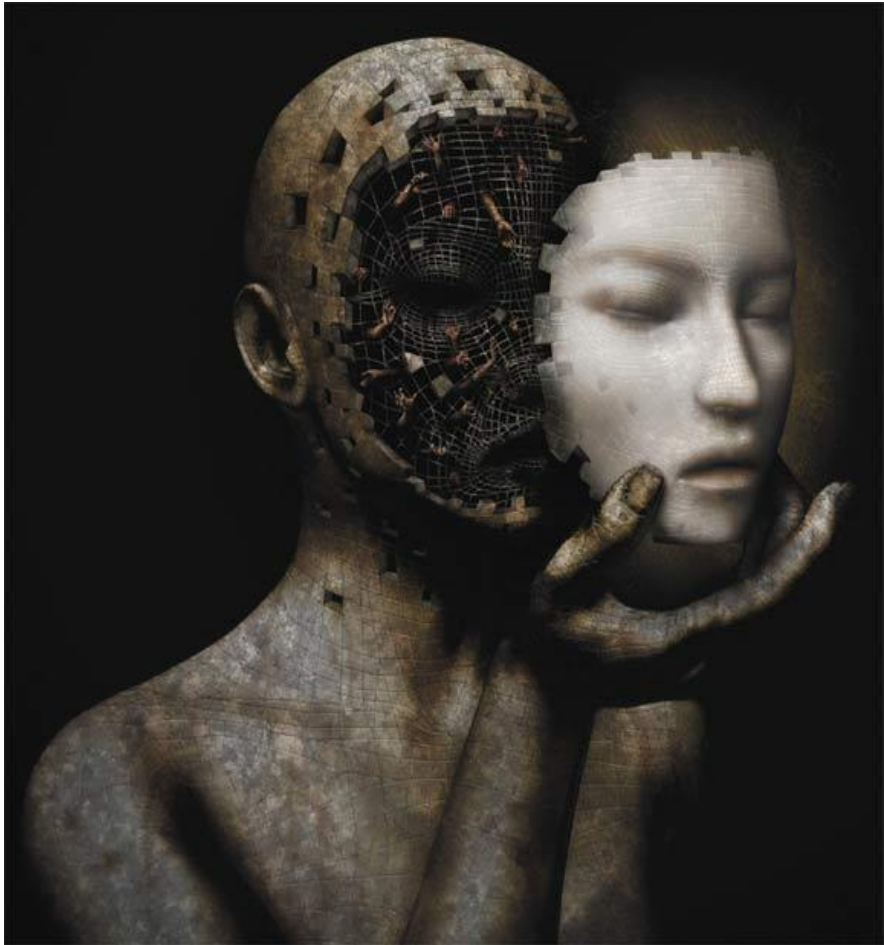


Communication and Behavior Management Strategies For Riders With Autism Spectrum Disorders

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Communication and Behavior Management Strategies For Riders With Autism Spectrum Disorder

- An overview of Autism Spectrum Disorder(ASD) ranging from lower functioning, non-verbal Riders to highly verbal Riders with social skills deficits.
- A review of theories underlying behavioral characteristics of individuals with ASD.
- Suggested Behavioral Management Strategies

Autism Defined

The word Autism derives from the Greek word “autos”, or “self”.

The American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders-5 identifies autism disorder using the following criteria: severe qualitative impairment in social interactions and verbal and non-verbal communication, with repetitive and stereotyped patterns of behaviors, interests, or activities.



Prevalence of Autism

The Center for Disease Control and Prevention (CDC) released new data on the prevalence of autism in the United States. This surveillance study identified 1 in 59 children as having Autism Spectrum Disorder (ASD), with a 4 to 1 ratio of boys to girls.

Spectrum Defined

Autism Spectrum Disorder refers to a range of conditions characterized by challenges with social skills (www.autismspeaks.org).

ASD is defined as a Spectrum Disorder because it manifests itself differently in each individual, with characteristics that range along a continuum in five areas: social skills; communication skills; restricted/repetitive behaviors and interests; sensory responses; and cognitive abilities. Individuals on the Spectrum present with a wide range of abilities from low cognition and low to non-verbal, to highly verbal with above average intelligence.

Developmental Red Flags to Watch For

- * By age 6 months, child isn't laughing or squealing.
- By age 10 months, doesn't respond to his or her name.
- By age 12 months, isn't communicating when he or she needs something.
- By age 15 months, isn't using 1-3 words
- By age 18 months, isn't using 6-10 words

Developmental Red Flags to Watch For

- By age 21 months, doesn't pretend play with toys.
- At age 2 years, can't join 2 words together.
- At age 3 years, doesn't use simple sentences and ask questions.
- At age 3 years, demonstrates no interest in interacting with other children.

Understanding the Causes and Triggers of Disruptive Behaviors



“Houston, we have a problem.” James A. Lovell



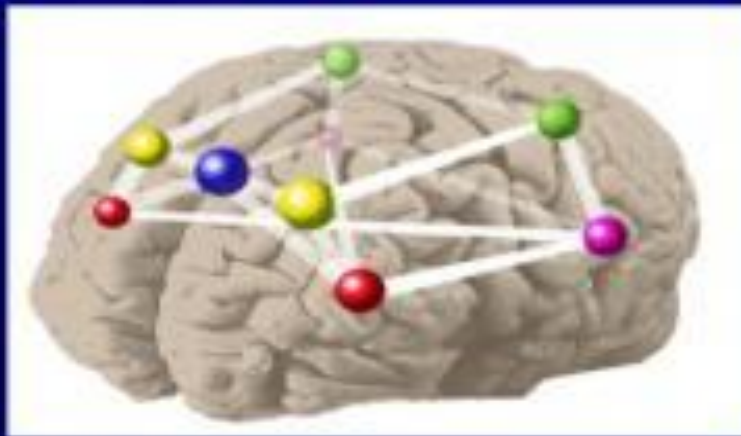
- *Individuals on the autism spectrum may display behaviors we perceive to be as aggressive, and in fact they are if the consequences can result in harm to themselves or others.
- *It is also important to acknowledge that not all negative behavior is disruptive or aggressive; it may present itself as detachment and disconnection; for these reasons it is important to understand the basic neurology of individuals with ASD.

THEORY OF UNDERCONNECTIVITY

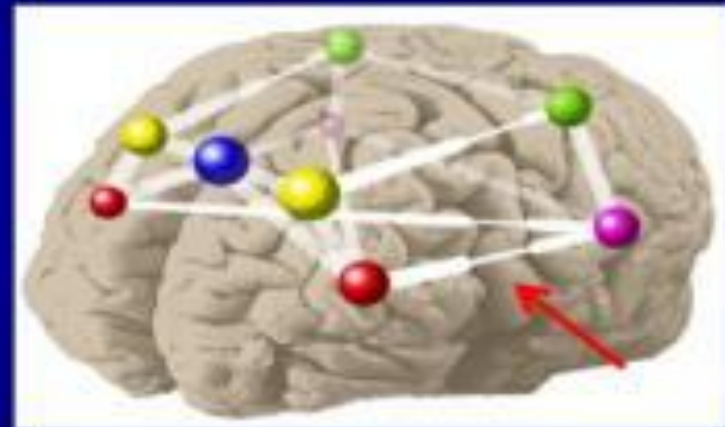
Breakdown in Neural Connections

Underconnectivity Theory of Autism

Neurotypical
Connectivity



Frontal-posterior
bandwidth limitations



Difficulty with thinking tasks that require frontal participation

- Social tasks, language processing
- Enhanced visual thinking

Suggested Triggers and Causes

- Theory of Underconnectivity: “Mono Channel” and Neurological Processing; inability to receive, process, and respond to conflicting sensory information.
- “Mono hearing”, “mono vision”, “mono touch”, “mono smelling”, “mono taste”.
- Overload of sensory information; inability to process sensory information and stimuli simultaneously often leads to behaviors , perceived as “Meltdown Behavior”.



Additional Triggers and Causes



- **Prior, unknown antecedents**
- **Introduction of new experience or change in routine without warning.**
- **Overload of verbal information.**
- **Waiting, or lack of structure.**
- **Inability to express discomfort, pain, illness, lack of sleep, hunger, thirst, or need to use restroom.**
- **The behavior is individualistic and a response to stress, frustration, and anxiety over inability to communicate. A familiar caregiver will know the signs that preclude the behavior and understand tactics that work through tried attempts of trial and error.**

OVERSTIMULATION OF THE SENSES

- If the theory of underconnectivity holds true, an analogy of brain function of the individual with autism is similar to an overloaded circuit of the senses. The sensations of light, sound, smell, touch, or even taste can be heightened to such a level that the individual experiences the feeling of being overwhelmed and out of control until their brain completes the function of processing the overloaded neurological circuit.

Strategies That Lead to Enhanced Communication and Cooperation





- * In the instance a Rider demonstrates a “Meltdown” and may become physically aggressive toward the horse, side-walkers, or self, consider safety first , and emergency dismount if unable to be re-directed.
- Lead Rider to safe, calm setting to allow his or her brain to complete the function of processing the overload of the neurological circuit.
- Allow the Rider ample space and time to process the sensory overload, with little to no verbal language.

Developing Goals and Strategies for Success



- * **Know the Families and Caregivers first and foremost; Develop Relationship with Rider.**
- **Disruptive Behavior can be the most effective form of communication a nonverbal person can utilize; don't take behavior personally.**
- **Take Data to measure growth!**

Positive Support



- Families are an incredible source of information for strategies tried and true.
- Have consistent routines and schedules but build in tolerance for changes in routine; prepare for transitions.
- Reduce Language; Use single word to 3-word commands; Allow Riders to process information with one sense at a time.

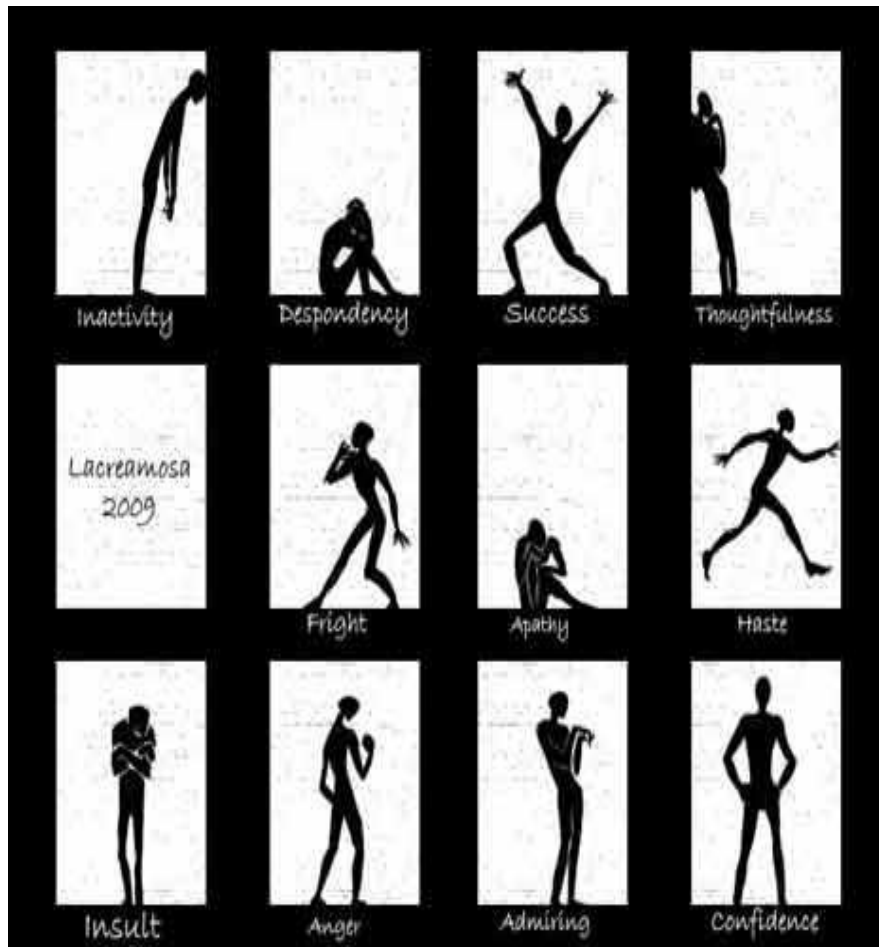
Non-Verbal/Low Verbal/Low Cognition Individuals on the Spectrum: Strategies for Intervention

- **Movement calms the nervous system; match the horse's movements with the rider's needs; incorporate changes in rhythm.**
- **Make sure directions are given step-by step with simple language, visually, and with physical support as needed; students with ASD typically have difficulty interpreting body language, facial expression, and tone of voice; be as concrete as possible (use your "poker face" and even vocal tone).**

Non-Verbal/Low Verbal/Low Cognition Individuals on the Spectrum: Strategies for Intervention

- **Allow Rider time to process information, and time for response; processing time varies for each individual; repeating instruction too frequently begins processing time all over again.**
- **Use of Applied Behavior Analysis (ABA); positively reinforce and shape positive behaviors by not responding to inappropriate behavior or responses from the child. Avoid negotiation. ABA is based on the concept of “shaping behavior” via ignoring the non-preferred behavior by acknowledging only the preferred response or positive behavior, accompanied by a series of verbal and/or tactile prompts faded over time.**

REINFORCEMENT OF NON-VERBAL BODY LANGUAGE



All individuals with ASD benefit from the reinforcement of non-verbal communication skills. The horse communicates non-verbally and is a segue to increasing the individuals' understanding and use of body language necessary to establish control when riding.

Additional Strategies

- Redirect and substitute unwanted behavior if Rider becomes aggressive with side-walkers or horse.
- Use a calm, even tone of voice and maintain relaxed posture. The Indiana Resource Center for Autism (IIRCA) and Indiana's Autism Leadership Network recommend Approaching the Rider from the side, rather than approaching from the front to allow processing time.
- Leaders and Side-walkers work collaboratively as a team utilizing consistent strategies, a focus on goals and objectives, and prompts specific to the Rider.

Interventions for Highly Verbal, Higher Cognition Riders with ASD

- Build opportunities for the student to have social/collaborative interactions throughout the riding session.
- Establish reward systems to reinforce and recognize appropriate social behavior.
- Work on one behavior or social skill at a time. This results in less confusion and increased responsiveness to intervention.
- Set limits when child monopolizes conversation or abruptly shifts topics; redirect child back to topic.

Interventions for Highly Verbal, Higher Cognition Riders with ASD

- Provide the child with choices when possible. This increases the child's ownership of the task or activity.
- Explain the rationale and importance of providing periodic eye contact; compare it to a handshake.
- Distinguish the difference between behaviors that are characteristic of ASD and simply bad behavior.

Straight From the Horse's Mouth: Temple Grandin



Temple Grandin: Teaching ASD Children and Adults

- “Some children and adults cannot process visual and auditory input at the same time. They are mono channel. They cannot see and hear at the same time. They should not be asked to look and listen at the same time. They should be given either a visual task or an auditory task. Their immature nervous system is not able to process simultaneous visual and auditory input”.
- “In older non-verbal children and adults touch is their most reliable sense. They can learn their letters by letting them feel plastic letters”.

VARY COMMUNICATION TO FIT THE INDIVIDUAL



- * Experiment with using more gestures, pointing, or tactile prompts in lieu of verbal instruction; point or gesture “turn” or “whoa” for students who are low to non-verbal; pair gestures with tactile prompts as needed.
- * Utilize visual prompts such as Red and Green laminated card stock to indicate stop and go, or Graphic Arrows to point in direction of turn; pair visual prompts with single word commands (“turn”; “whoa”; “walk-on”).
- * Take Data to measure change in target goals and objectives; Small changes are Monumental; share info with families who often need encouragement.

Effects of Equine Assisted Therapy

- Equine Assisted Therapy (EAT) is a collective term for all types of therapeutic activities using horses and its main goal is to use riding as a tool in a therapeutic process (Hakanson et al, 2009). Positive effects of EAT have been found on symptoms of cerebral palsy, multiple sclerosis, and spinal cord injury. In children with cerebral palsy improvements in posture, gross motor function, functional motor performance and muscle symmetry have been found.

Effects of Equine Assisted Therapy and Autism Spectrum Disorder

Recent research has indicated that the act of riding the horse has the benefit of engaging and motivating the child (Basset al., 2009).

- It is theorized that neural functioning in autism is highlighted by a functional under-connectivity of bilateral coordination between the hemispheres of the brain (Just et al., 2004,2007). Although not reported in research, an improvement in bilateral coordination is thought to stimulate the development of new neural connections between the hemispheres.

Effects of Equine Assisted Therapy and Autism Spectrum Disorder

- Recent research by Bass et al. (2009) studied the effect of therapeutic horse riding for individuals on the autism spectrum and indicated improvements in sensory integration, directed attention, social motivation and sensory sensitivity, as well as less inattention and distractibility.

Interpret the Communication

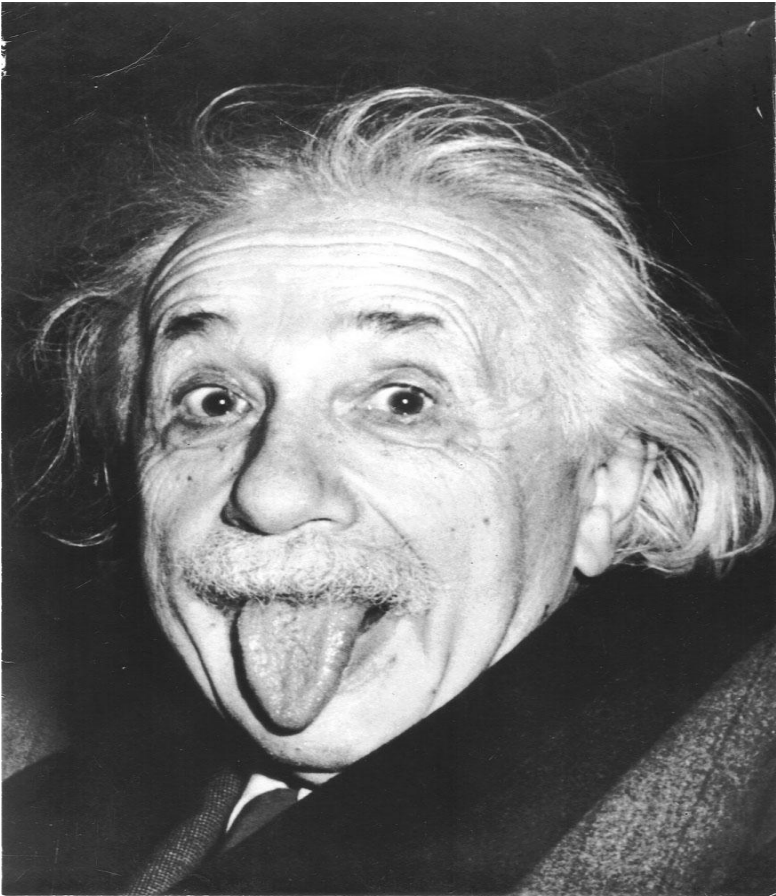


It's All about Perspectives



- Learn to perceive the world through the eyes of your Rider's neurological sensory world in all communication endeavors.
- If a lesson goes astray shift your perspective and expectations on what the child is focusing on to teach in the moment and re-establish joint attention.
- Runa's Perspective
- Meg's Perspective

Celebrate the Difference



- Individuals with autism see the world in little pieces and then create the whole picture; Normally Developing Individuals generally process the whole and then break it down into the smaller parts because our processing works differently. There's room and function in the world to learn and grow from each other.

CONCLUSION: First and foremost; use your relationship with the child as your most valuable tool. An understanding of the child and his or her family facilitates an increase in the child's responsiveness and awareness of self and others.

- Understand that the child's development is unique. Develop activities based on this knowledge and scaffold activities accordingly.
- Be consistently aware of your own body language, verbal and non-verbal interaction, and responses to the child's communication skills. Apply strategies that lead to increased communication. Set realistic goals and be able to measure change.
- Equine therapy is an optimal opportunity for language enrichment; use the moment to teach. Attach relevance to opportunity.