Therapy Foundations for Education
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SENSORY HISTORY of Autism (By Valerie Dejean)

A complete sensory history provides very important diagnostic information, as it allows us to focus on specific areas of function, as well as allow us to interpret and measure progress more accurately.

Analyzing the sensory patterns that a child presents with, helps us and the family unravel the mysteries of certain behaviors that may otherwise seem abnormal. We must understand in this context, that the child is trying to meet a developmental need or may perceive the world in such a radically different manner than our perception, and that this behavior is the only thing that makes sense to him. For example a child that constantly spins himself or objects may actually be a child with a severely underreactive vestibular system that he is trying to stimulate. *We* normally get this stimulation through movement. However this child may not receive this normal stimulation adequately through his disordered system, and thus tries to make up for it through intensive movement (spinning).

His vestibular system may be so underreactive, that he tries to get this stimulation optic-kinetically through his visual system (spinning objects). Looking at the behavior in this light, rather than trying to extinguish it, we might try to find way to more appropriately provide the child the stimulation he seeks. (For example, we put him on a swing on a spinner, and the child swings while batting at dangling objects.) It sounds simple but often a technique like this (meeting the sensory needs of the child) will extinguish a behavior much faster than stopping the behavior forcibly. A child's innate need is often the best lead to follow in treatment. Just because there is abnormality doesn't mean that the child's instincts are wrong.

Understanding the particular sensory sensitivities of a child will help us engage a child with a diagnosis that includes severe relationship problem as its main symptoms. If a child with Autism/PDD is over-reactive to light and sound, a whisper may get their attention. If they are under-reactive an animated voice with exaggerated facial expressions is what will work.

Difficulties in motor planning, known as dyspraxia is common in children with Autism/PDD, though it is infrequently recognized. Motor planning or praxis is the ability of the brain to

conceive, organize, and carry out a sequence of unfamiliar actions. In dyspraxic syndrome there is a reduced ability to carry out non-learned movements, even though there is adequate motor and conceptual capacity to do so. Praxis is believed to be a single function involving three basic processes: ideatio n or generating an idea of how one might interact with the environment; motor planning or organizing a program of action; and execution or the actual performance of a motor act.

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Difficulties in motor planning are often the explanation for the increase in frustration the child experiences in the second year. According to Piaget, the child moves from the sensory-motor period (which they haven't mastered adequately) to the operational period at this time. Rather than just experience the world, the child is called upon to master it. Toys become more complex requiring more complex and sequenced motor behavior which they cannot organize. Language also becomes more complex, requiring more complex and sequenced oral motor movements. Motor planning problems affect a child's ability to learn through imitation. They cannot learn through gestural demonstration and much of early childhood learning is done in this manner. Children with motor planning disorders may be able to generate their own plan but cannot follow someone else's. They may seem uncooperative as they cannot perform on demand, (usually for an examiner), tasks their families have seen them do on other occasions.

Integration of sensory information (which sound stimulation can profoundly influence) gives our brain the capacity to learn. It gives us the ability to put it all together, the foundation necessary for more abstract concepts. This integration allows us to perceive red, round, hard, and then develop the concept of apple. This gives the foundation to recognize a picture of an apple. We can then latter recognize and connect the symbols A P P L E to mean apple. We can later become even more abstract and understand the expression "you are the apple of my eye."

Many children with Autism/PDD cannot make the symbolic leap to abstraction. They are trapped in a lower level of development. They can spin the wheels on a car yet they cannot pretend to make the car go down the road. This blocks their ability to develop normal cognitive and linguistic structures such as make the car go fast/slow, over/under etc. Their ability to perform may have no proportional relationship with their cognitive level which often is quite intelligent. Again a cause for significant frustration and low self esteem.

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