

Nonverbal Learning Disorder

by Lisa Graziano, M.A.

My child has difficulty seeing the big picture and instead focuses on details. He often misses the forest for the trees. He can appear to do well in social situations but has a harder time reading others' expressions, understanding teasing and sarcasm and understanding others' motives. Because his verbal expression skills are quite good, people don't understand he doesn't always understand more sophisticated social interactions or communications. He can read quite well and is a phenomenal speller, but has a hard time with comprehension and identifying the main ideas and underlying themes in what he reads. Rote memory is a strength, but short-term, working or visual memory is not. He has a hard time generalizing rules from one learning situation to another. He is a concrete thinker, can be somewhat immature, and gravitates towards younger kids and adults. He exhibits anxiety and often complains of physical aches and pains (headaches, tummy aches) when in a new situation where he finds it harder to understand the social rules. As he is promoted from grade to grade, the work seems harder and more demanding. As his parents, we spend more time helping him organize his work, help him understand the context and perspective of homework assignments and follow written directions better. He talks constantly, and I've recently noticed that it does appear he understands written directions better when he reads them aloud and talks his way through an assignment.

Does this sound like your child? If so, he may have Nonverbal Learning Disorder (NLD) in addition to Prader-Willi syndrome. Nonverbal Learning Disorder is a neurological syndrome with specific strengths and deficits. It is currently not commonly diagnosed in persons with PWS, however it is likely that more people with PWS meet the criteria for NLD than are diagnosed. NLD is a rare and often overlooked learning disability in the general population. It is likely not recognized in children and adults with PWS due to the additional challenges that make it more difficult to diagnose such as speech dyspraxia and/or lower IQ. If you suspect your child may have NLD, do some more research. Talk with your child's teachers. Have specific testing done. For being a rare learning disability, there are many excellent resources available to learn more about the disorder and how to help your child or adult child adjust to the inherent neurological challenges this disability poses so that he functions better at home, at school and at work.

Typical strengths associated with NLD include the following. Remember, the challenges of PWS may mask some of these strengths such as early speech and vocabulary development and verbal abilities.

- Early speech and vocabulary development
- Excellent rote memory skills
- Attention to detail
- Early reading skills development
- Excellent spelling skills
- Strong auditory memory
- Verbal ability to express oneself well

There are four major categories of deficits associated with NLD:

- **Motoric** – Lack of coordination, severe balance problems, and difficulties with graphomotor skills.
- **Visual-spatial-organizational** – Lack of image, poor visual recall, faulty spatial perceptions, difficulties with executive functioning, and problems with spatial relations. The National Center for Learning Disabilities defines executive functioning as “a set of mental processes that helps us connect past experience with present action. Executive functioning is used when performing such activities as planning, organizing, strategizing and paying attention to and remembering details.” Executive functioning includes initiating, prioritizing, sequencing, motor control, emotional regulation, problem solving, impulse control, self-monitoring, and self-correcting.
- **Social** – Lack of ability to comprehend nonverbal communication, difficulties adjusting to transitions and novel or new situations, and deficits in social judgment and social interaction.
- **Sensory** – Sensitivity in any of the sensory modes: visual, auditory, tactile, taste or olfactory (smell), vestibular, proprioceptive.

The typical signs of Nonverbal Learning Disorder (which may be masked by PWS) include:

- Great vocabulary and verbal expression
- Excellent memory skills
- Attention to detail, but misses the big picture
- Trouble understanding reading
- Difficulty with math, especially word problems
- Poor abstract reasoning
- Physically awkward; poor coordination
- Messy and laborious handwriting
- Concrete thinking; taking things very literally
- Trouble with nonverbal communication, like body language, facial expression and tone of voice
- Poor social skills; difficulty making and keeping friends
- Fear of new situations
- Trouble adjusting to changes
- May be very naïve and lack common sense
- Anxiety, depression, low self-esteem, withdrawal

Below are parenting tips for kids with NLD from NLD expert Pamela Tanguay. Notice how many of these tips are known to be necessary for people with PWS. For persons with NLD it is absolutely vital to give verbal explanations of *everything*.

- Keep the environment predictable and familiar, and prepare your child for changes.
- Provide structure and routine.
- Prepare your child for changes, giving logical explanations.
- Pay attention to sensory input from the environment, like noise, temperature, smells, many people around, etc.
- Help your child learn coping skills for dealing with anxiety and sensory difficulties.
- Be logical, organized, clear, concise and concrete. Avoid jargon, double meanings, sarcasm, nicknames, and teasing.

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- State your expectations clearly.
- Be very specific about cause and effect relationships.
- Work with your child's school to modify homework assignments, testing (time and content), grading, art and physical education.
- Have your child use the computer at school and at home for schoolwork.
- Help your child learn organizational and time management skills.
- Make use of your child's verbal skills to help with social interactions and non-verbal experiences. For example, giving a verbal explanation of visual material.
- Teach your child about non-verbal communication (facial expressions, gestures, etc.). Help him learn how to tell from others' reactions whether he is communicating well.
- Help your child out in group activities.
- Get your child into the therapies they need such as: occupational and physical therapy, speech and language therapy, social skills therapy.

How can you help improve your child's social skills? Ah, if only there were an easy answer to this question! Start social skills training as early as possible and know it's never too late to learn! Work with your Regional Center case worker, speech and language therapist, school psychologist, medical system, etc. to enroll your child in social skills groups. Child behavior expert Mel Levine suggests a few ways parents can help improve their child's social skills deficits:

- Go along with your child to a group activity with other kids. Watch your child's interactions. Afterward, in a quiet, private time, discuss the problems you noticed and talk about how your child could have acted differently.
- Help your child find one or two playmates with whom they get along. This is a good way to start building skills. It helps if the playmates have some things in common with your child.
- Help your child develop interests and skills that will build his self-esteem and help him relate to other kids. For example, if your child is interested in Pokémon, pursuing this interest may open social doors for him with schoolmates.
- Never force your child into a situation that might embarrass him.
- If your child is being bullied at school, talk to the principal and teachers about it. The school must make every effort to prevent bullying. You may find that a note from your child's doctor helps.

If your child is ultimately diagnosed with NLD, understanding the strengths and deficits of this specific learning disability can go a long way toward helping him learn more effectively, understand his environment more easily, and experience less anxiety. For parents and care providers of someone with PWS who is diagnosed with NLD, knowing as much as we can about NLD gives us greater insight into how we can better understand, accept, and help him compensate for his neurological limitations.

How to Diagnose Nonverbal Learning Disability? For the school age child, the testing process begins within the school setting (psychoeducational testing) but testing can be done at any age and by any qualified practitioner, and should be if Nonverbal Learning Disability is suspected. Testing should include a host of tests, including assessment of fine motor, gross motor, speech and language, behavior and social skills. Cognitive testing will include a battery of different tests and should include the Weschler's intelligence test (WISC). While the WISC total score is helpful in the diagnosis of NLD, the various sub-tests that quantify classic signs of NLD are even more important. For example, if your child/adult child's verbal score is significantly higher than her performance score, that gap could be an indicator of NLD and should trigger more in-depth testing for NLD. Assessing your child/adult child's social performance is key for the diagnosis of NLD because social performance is a key deficit in NLD due to the extreme difficulties in comprehending all nonverbal communication including facial expression, body language, tone of voice, nuance, and inference – *everything* nonverbal. Behavioral assessments must look at how your child defines and expresses her feelings, which is often extremely difficult for someone with NLD, as well as how she shows her frustration or disappointment, which for someone with NLD is typically either shutdown or meltdown (coping strategies attempting to manage an overwhelming demand or experience). Assessing for flexibility and anxiety are important – just as with persons diagnosed with PWS, persons with NLD are often so anxious about change that they become rigidly afraid to try something new.

Testing for Nonverbal Learning Disability can be performed by a licensed psychologist or school psychologist, neuropsychologist, or an educational therapist. Occupational, physical, speech and language therapists' role in the diagnosis process is to observe and report. The official diagnosis of Nonverbal Learning Disorder, according to NLD expert Rondalyn Varney Whitney, can be given only by an MD, the psychologist in the school, or a neuropsychologist with a Ph.D.

Additional Resources:

Bridging the Gap: Raising a Child with Nonverbal Learning Disorder, Rondalyn Varney Whitney
Nonverbal Learning Disabilities at Home: A Parent's Guide, Pamela B. Tanguay
Nonverbal Learning Disabilities at School, Pamela B. Tanguay
Helping a Child with Nonverbal Learning Disorder or Asperger's Disorder, Second Edition, Kathryn Stewart, Ph.D.
Raising NLD Superstars, Marcia Brown Rubinstien
A Special Kind of Brain: Living with Nonverbal Learning Disability, Nancy Russell Burger
The Source for Nonverbal Learning Disorders, Sue Thompson
www.NLDontheweb.org
The Unwritten Rules of Friendship: Simple Strategies to Help Your Child Make Friends, Natalie Madorsky Elman, Ph.D. and Eileen Kennedy-Moore, Ph.D.
Good Friends are Hard to Find: Help Your Child Find, Make and Keep Friends, Fred Frankel, Ph.D.
The Explosive Child: A New Approach for Understanding and Parenting Easily Frustrated, Chronically Inflexible Children, Ross W. Greene, Ph.D.