

Introduction: There are very few studies of autistic spectrum disorders (including Asperger's Syndrome) and EEG Neurofeedback. Clinicians around the globe have been reporting dramatic responses for a decade or more. Stephen Larsen, PhD in his book, *The Healing Power of Neurofeedback*, discusses two cases. Below is a report published in NeuroConnections, the joint newsletter of the two national biofeedback organizations, July 2007.

The Lens and Autism: A Case Study of JJ*

*by Nicholas Dogris, PhD***

In April 2006, I received a telephone call from JJ's mother requesting information about neurotherapy. She had heard about me through her pediatric physician and was interested to learn more about non-medication approaches for the treatment of autism. Her son, JJ, was struggling and needed assistance because most everything he had tried had failed and she was desperate. I provided JJ's mother with information about traditional neurotherapy along with information about the Low Energy Neurofeedback System (LENS). JJ's mother was intrigued and decided to schedule a LENS mapping session for her son.

Up to this point in time my success rate with children who suffered from PDDs was variable. The ability to engage in the treatment required the client to focus enough attention on the screen in order to make the training worthwhile. For some PDD clients this worked very well, and with others it simply failed because they could not engage in the training process. However, the LENS system did not require the client to engage in a training process. They simply needed to sit there while I administered the treatment.

For young children I would simply put on a DVD and let them watch a movie while I mapped the brain. While this technique has problems associated with EEG artifact, it was still effective in providing me with enough information in order to provide LENS treatment.

When JJ and his mother arrived at my office JJ was visibly anxious, made no eye contact, spoke in quick, pressured sentences, and was eager to leave the office as soon as possible. I instructed JJ to sit in a chair close to the computer while I explained the LENS mapping procedure to him and his mother. JJ rocked back and forth in the chair, head down, and asked how much longer this process would take. Since I'm a person who likes to joke around I asked him if he was waiting for his stock broker to call. No response. His mother laughed and I simply began placing the sensors on his head and mapped his brain. I developed a 15 session treatment plan where JJ would come in once a week and receive LENS treatment at seven sites. He would also be asked to wear the blue/green pROSHI glasses for 15 minutes prior to each session.

JJ's first LENS map did not look as "bad" as I expected it to be. However, after speaking to his mother and therapist I learned that JJ was coping with the moderate to severe symptoms of autism that pervaded every aspect of his life. School was especially tough for JJ and he was known to walk down the hallway with his hands on the wall like a human spider. He had poor social skills and was unable to recognize social nuances. As a result he had few friends, if any, and would isolate himself at home. JJ described himself as a "monster."

After a month of treatment I did not see much change in JJ and decided to try using a protocol that I had developed while treating my son. It had been a particularly snowy year in Bishop, California, having had several

storms that covered my home in snow. After one big storm my truck was immovable so I tried the old rock back and forth driving trick to get my it out of the snow. While I was shifting between reverse and drive I realized that I could apply the same concept to the LENS. In LENS theory the excursion of the dominant frequency is limited when a person has suffered from neurological injury. The LENS helps to broaden that excursion, which translates to improved overall functioning. With this thought I deviated from the standard feedback protocol that comes with the LENS system and wrote what is now called “Rocking the Brain.”

I began by “rocking” JJ at T5, P3, Pz, P4, and T6. These sites were selected based on my belief that the motor cortex fails to integrate itself appropriately when the person is an infant. This causes, in my opinion, sensory integration issues that give rise to autistic symptoms if not the full blown disorder. I was concerned that I might overstimulate him and trigger a “wired” or “tired” response. However, JJ showed no sign of overstimulation and reported that he felt OK. Within days of this treatment JJ began to emerge from his shell. His mother was amazed and began emailing me her observations. When he arrived for his next session he walked into my office looked me in the eye and said, “Hello.” He was calm and relaxed as he walked to the sofa looking for the pROSHI glasses. I was shocked because, I had never seen such a dramatic change in my history of doing neurotherapy. During this session I rocked JJ again and he looked at me after one of the stimulations saying that he felt like his brain was “evolving.”

Over the next four months I observed JJ’s symptoms of autism diminish to levels that allowed him to be a functional person. In total, he spent seven months in treatment. His maps show changes in the delta, theta, and alpha ranges that illustrate the notion of suppression and reactivity that

is typically observed in LENS treatment. After one year JJ's treatment gains remain intact and he continues to improve.

JJ's progress (along with my son and many other clients) motivated me to develop other protocols for the LENS that would facilitate this "rocking" process so that others like him could be helped.

JJ's progress was documented by his mother who is an active part of his life and has done everything that she can to help her son. The following is an account from her perspective. I feel that it is important to hear her story as it illustrates what I observe with the LENS on a consistent basis.

The following is an account from JJ's mother written three months after he began LENS therapy:

I didn't know what to do. It was hard for me to see JJ suffering. We had been attending a local church regularly for the past four months after taking a hiatus for about 12 years. It was a Saturday morning when I decided to get on my knees and pray for a miracle, miracle to cure JJ of this autism. I called his pediatrician to ask if I could meet with him. I expressed that I felt the medications he had been taking for 10 years might be causing negative side effects. I wanted JJ to be off all medications. I needed to see the real JJ. Were there other options besides medications? I wanted to see JJ without chemical dependency.

The pediatrician shared with me that he had heard of neurofeedback therapy, but he really didn't know much about it. At the same time I was

talking to the pediatrician, JJ's school counselor was talking to the neurotherapist 45 minutes away. She had the same idea.

Is neurotherapy the miracle I prayed for? JJ has been medication-free for the past five months after receiving 10 sessions of neurofeedback therapy. This is the highest functioning my child has ever been, and he is without medication. He told me for the first time a few months ago, "Mom, I am loving my life." I asked him why. He expressed that he now has a brain. It feels like he has an open brain. JJ shared that he hopes he lives really, really long.

These are areas I have seen improvement:

- open mindedness
- thinks more logically
- processes information more quickly without confusion
- holds "on topic" conversations
- takes the perspective of others
- goes outside the box and breaks routines
- has more self control (not being so impulsive)
- being more comfortable with "who" he is
- has a higher self-esteem
- does not get irritated or frustrated as easily

- seems to problem solve better coming up with good solutions
- is making goals for himself
- has a positive attitude; has a "can do" attitude
- appears to have a lot more confidence
- is taking responsibility for his actions
- remembers information

Here are a few examples:

JJ has not participated in extra-curricular activities since 1st grade. He has not felt comfortable doing so. My thought is because it would upset his routine, that he wanted to isolate himself from the rest of the world hanging out in his room focused on drawing, or that he thought he should know all of the information before hand. After a few months of neurotherapy, JJ expressed interest in martial arts; he has been taking lessons for the past three months and thoroughly enjoys it. For the past few months, he has also expressed interest in becoming a police officer or detective as he plans to go on to college. He has anticipated in four "ride-alongs" with the local police department and is seeking out a job after school

with the PD, something he would have never done before (he just got the job!!!).

For months, JJ had a behavioral plan in place at school. This was to help him with self-control and not lash out at other students during conflict. In the heat of the moment, he could not think through this process and would get into trouble many times for his impulsive and reactive behaviors. A few months ago, JJ called me from school to share his excitement that he had followed the plan during a confrontation from another student. Bursting with excitement, he expressed, "I did it, I did it, I did it!!!"

Over the years, we have tried to teach JJ how to hold conversations. This has not clicked until recently. He stores "friend files" in his brain so that when he sees a friend, he can pull information out of his brain to start a conversation. Recently, I observed a conversation. A friend came up to JJ. He asked a very appropriate question. The friend responded, JJ then asked another question relating to the friend's answer because he was listening to the answer. He did this about three times building on the conversation. He listened and stayed "on topic." In the past, JJ would have entered a

conversation with an off-topic joke and then couldn't understand why no one got it.

Over the past few months, several people have expressed to me the difference they have seen in JJ. They have shared with me that his face looks so relaxed, that he has eye contact, he looks so happy, always smiling and laughing. He appears very confident and holds very intelligent conversations. They have witnessed him socializing very appropriately. They can't believe the difference and neither can I.

I have also witnessed JJ hanging with friends with his body language engaged participating in conversation. In the past, he would have been very anxious pacing outside the circle wanting to get into the conversation wringing his hands appearing stiff-like.

During summer break, JJ was an assistant at the local day camp. He loved volunteering there. I asked what it was that he enjoyed so much. He said it was so much fun being around the kids.

We visited my mother over the summer. She spent a day alone with JJ visiting an animal park. She had such a wonderful time with him. She could not believe the difference in JJ, the very intelligent conversations she had with him and how he kissed her cheek thanking her for caring

so much for our family. I shared with her how it was just recently that JJ had kissed me on the cheek, too, and told me that he loved me.

Over the past several months, JJ has attended a weekly local youth group. He participates in discussions, and recently brought a friend. I understand he did very well introducing his friend to the other kids. JJ appears more confident in social situations.

JJ doesn't hold a driver's license. With his new social schedule, I have driven him around or he has taken the town shuttle. Another parent said to me, "Too bad you have to drive him around." I said, "Are you kidding? I finally get to do it. For years, all those other parents got to and I never did."

JJ is writing a graphic novel on tolerance and differences. He is a gifted artist and wants to help others. Autistic people are very highly intelligent. Can you imagine what lies ahead when we unlock the doors that have been holding them in bondage? AN AWAKENING!!! Is this a cure for autism? Like the old saying goes, be careful what you wish (pray) for. I am now experiencing a huge adjustment in my life as JJ has become more independent, thinks more logically, seems more intuitive and is less impulsive. He just wants to

be a teenager. I have to stop and let go because he is less dependent on me. When I seem a little overly protective, he'll say to me, "Mom, stop living in the past...you know what I mean." There is still a journey ahead of us, but I'm excited to see what the future holds; JJ's wonderful journey.

** Used with permission of Nickolas Dogris, PhD*

***Dr. Dogris is a psychologist who practices in the Eastern Sierra Mountains located in Bishop, California. He has been using neurofeedback for over seven years in his clinical practice treating children, adolescents and adults. Dr. Dogris has developed several innovations for the LENS and is committed to the research and development of the LENS technology. Dr. Dogris earned his PhD from the California School of Professional Psychology in 1997. He earned a Master's Degree in research psychology from Humboldt State University in 1990 and his BA from California State University, Long Beach in 1987. Dr Dogris has 17 years of professional experience working with a wide variety of patient populations.*