

Children on the Spectrum *continued from cover*

differences between how children with autism and children without autism view biological movements, such as changing facial expressions.

In the study, toddlers watched a screen that displayed animated figures playing games, such as peek-a-boo and pat-a-cake. On one half of the screen, the figures were shown right-side-up. On the other half the screen, the same figures were shown upside-down and played the games silently and in reverse order. The children without autism preferred to look at the figures that stood upright and made noises; however, children with autism paid equal attention to both the upright and the silent, inverted animations.

What are the attention patterns of children with ASD?

Dr. Klin and his colleagues discovered that toddlers with autism were drawn to audio-visual synchrony, such as when hands clap during pat-a-cake. The children without autism preferred to look at animations that depicted more true-to-life scenarios, with upright characters. This appears to confirm that toddlers with autism fail to look at social signals, unlike typically developing infants, who begin to notice them when they are only a few days old.

An earlier study by Dr. Klin and colleagues found that children with autism spend more time looking at people's mouths rather than their eyes. In light of the audio-visual synchrony finding, this now makes sense, because mouths have the greatest audio-visual synchrony on the face.

While autism is most probably a genetic disorder, learning is shaped by our experiences. If people with autism begin to view the world in this way from birth, then the paths of development move progressively further apart as the child grows older. We must work to develop tests that are designed to identify children who show this pattern of viewing as early as possible and implement programs that shift the child's focus toward social signals.

In the meantime, clinicians and family members can use audio-visual synchrony (snapping, clapping) as a tool to capture a child's attention—which is fundamental to the acquisition and learning of new skills.

Parent Support Series for Caregivers of People with Autism Spectrum Disorders

Thanks to grants from the New York City Council's "1 in 150" Autism Initiative and New York State's OMRDD, YAI/National Institute for People with Disabilities has been conducting ongoing informational and support groups for parents and caregivers of people with autism spectrum disorders.

Sessions are conducted in English and Spanish and feature professional speakers from a range of disciplines including speech therapy, nursing, Applied Behavior Analysis and social work. Past topics have included:

- Navigating the Special Education System
- Maximizing Social Skills
- Making Sense of Your Child's Psychological Evaluation
- Applied Behavior Analysis
- Stress Management
- Picky Eaters
- Understanding the Differences Among ASD Diagnoses
- Independence and Dependence: Learning to Let Go
- Making Sense of Research
- Living with Autism

Each session includes informational and support group components so that parents and caregivers gain information, as well as a chance to connect with other parents. "This workshop was very informative and the information will last a lifetime," said Andrea, a parent from the Bronx.

"My son is older and has different needs and I got the answers that I needed at the support series," said Anna, from Queens.

The next support series will begin in September. Although the groups are entirely free of charge, registration is required! For more information or to register, please call YAI LINK at 1-866-YAI-LINK.

Top Autism Experts and Advocates Educate Thousands

Providing vital information to families and professionals is an essential component of the YAI/NIPD Network's mission. At this year's thirtieth annual International Conference, advocates and leading experts in the field of autism spectrum disorders led full-day workshops and sessions on a number of topics. What follows is just a few of the highlights.

Senator Robert Menendez

During his Monday keynote address, Senator Robert Menendez (D-New Jersey), who has sponsored two key pieces of legislation that would provide new funding for autism services, spoke of the need for increased funding. He called YAI/NIPD an "incredible group of professionals leading the charge to meet the challenges of autism and developmental disabilities" and a "tremendous resource for families."



Senator Menendez (third from right) congratulates Amir (on his left) along with Amir's mother and sister and OMRDD Commissioner Ritter (left), Dr. Philip H. Levy (center) and Dr. Joel M. Levy (right).

Martha Reed Herbert, M.D., Ph.D., Assistant Professor of Pediatric Neurology and Director of the TRANSCEND Research Program, Massachusetts General Hospital, Harvard Medical School



Premier HealthCare's eighth annual full-day conference featured the expertise of many innovative medical professionals who work in the field of autism. Among them, Dr. Martha Reed Herbert of Massachusetts General spoke on a controversial topic: "Can Children with Autism Recover?" According to Dr. Herbert, between 3 percent and 25 percent of children reportedly lose their ASD diagnosis. Predictors of a diagnosis change include relatively high intelligence, receptive language, verbal and motor imitation and motor development. Possible mechanisms of recovery include: enriching the environment; promoting the reinforcement value of social stimuli; preventing interfering behaviors; practicing weak skills; and reducing stress.

Mark L. Sundberg, Ph.D., BCBA-D, Sundberg and Associates

Dr. Sundberg focused on "Using Behavior Analysis as the Foundation for Language Assessment and Intervention" during his full-day workshop. After an abilities-based assessment, intervention programs for children on the spectrum should "focus...on the development of effective and language programs," Dr. Sundberg said. He stressed the importance of thorough assessments in order to provide appropriate curricula for children on the spectrum—and avoid the most common stumbling blocks faced by programs that serve children with ASD. (For more on Applied Behavior Analysis, see Dr. Vincent Carbone's article on page 3.)



Brenda Smith Myles, Ph.D., Consultant, Ziggurat Group; Chief of Programs and Development, Autism Society of America

Dr. Myles' full-day post-conference workshop gave educators and family members valuable training and instruction on understanding and implementing the Comprehensive Autism Planning System (CAPS) for people of all ages with autism. The innovative tool was designed to include parents, teachers, special educators, support staff, speech pathologists, occupational and physical therapists, siblings and psychologists in order to ensure successful outcomes for people with autism. In addition, CAPS helps professionals identify the areas in which they themselves may need further training, in order to help them become more effective in their work as well as to develop their careers.



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The YAI/NIPD Network is an affiliate of Mount Sinai Hospital and The Seaver Autism Center for Research and Treatment at Mount Sinai School of Medicine.

The YAI/National Institute for People with Disabilities Network comprises seven independent, award-winning, not-for-profit, 501(c)3 health and human service agencies serving more than 20,000 infants, children, adolescents and adults with developmental and learning delays and disabilities and their families. The foundation of our success is the partnerships we form with the consumers of our services and their families, staff, government, corporations, supporters and volunteers. By working together, we fulfill our common goal of building brighter futures for people with disabilities and their families.

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If Not the Eyes, Then Where Do Children on the Spectrum Look?

by Charles Cartwright, M.D., Director of the YAI Autism Center

As a psychiatrist specializing in autism spectrum disorders, I have had countless opportunities over the years to observe how children with autism play and interact. Rather than making eye contact with their parents or play "pretend" games, many children with autism look at their parents' mouths and play by repeatedly dropping their toys to the floor.

Now, Ami Klin and his colleagues at the Yale Child Study Center may have explained why. In an article published in

Nature in March 2009, Dr. Klin and colleagues found that children with autism view biological motion—walking, blinking, waving, jumping—differently than other children. They explained that children on the spectrum are drawn by the coming together of sound and motion—such as toys dropping to the floor, mouths speaking or hands clapping.

According to developmental psychologists, babies pick up on the movements of their parents' eyes and facial expressions and

begin to imitate them, which help to form parent-child attachment. This provides the foundation for the development of language skills, self-expression and empathy in typically developing children.

Dr. Klin's study investigated the



Play Time: One Mom's Mission to Give Kids on the Spectrum Some Fun

by Jackie Ceonzo, Founder/Executive Director
SNACK—Special Needs Activity Center for Kids



I am the mother of two boys: Andrew is a typically developing 10-year-old; Joey, my 14-year-old, is on the autism spectrum. Joey loves to play basketball, swim, listen to music and attend birthday parties. He doesn't

really talk and he needs help with most things. He is also now bigger than me and his dad. Luckily, for now, he's happy most of the time.

Our journey began when Joey was diagnosed with epilepsy when he was 14 months old. When he was about 7, the seizures subsided as mysteriously as they had come, and we were faced with a little boy who was not toilet trained, unable to make his needs known to us and classified as having autism. We decided that it was about time this guy had a little fun.

Kids on the spectrum tend to not have a lot of play dates after school. They aren't given the opportunity to play, to run, to swim. We thought there was something wrong with the fact that Joey's only after-school activities involved occupational, physical and speech therapies. For the most part, children with autism can be taught play and leisure skills, but they can also exhibit challenging behaviors that only those who are familiar and trained can handle effectively. Kids on the spectrum need to be with other kids, doing things kids do, under the supervision of those who can pull them out of their own little worlds of self stimulation and into ours.

Andrew, my typically developing son, has always been able to take sports, music, art or swimming, without being on a waiting list. We wanted the same for Joey and other children like him. But because of his specific needs, Joey was turned away from several special needs recreation programs. We have always participated in many programs that are volunteer-run and free of charge. They have their special place in the recreation arena but we wanted a dependable source of respite, as most parents do. So we decided to start our own program. It's called SNACK or Special Needs Activity Center for Kids and it's designed to fill the void in recreation services for children with challenging behaviors. We realized that SNACK would need to be staffed properly by people familiar with Applied Behavior Analysis; it would have a high ratio of staff to children; and most importantly, it would provide a lot of love and hope. We also realized that it would be expensive to run and that we couldn't do it for free. We reasoned that if we pooled resources and shared with others, we could reduce the hourly outlay and help those who could not afford it, while providing our kids with a chance to have fun and make friends.

Joey still needs a lot of help with many things, but he has a quality of life as close to his brother's as we could give him — and so do dozens of other kids.

The YAI Autism Center Advisory Council



For more than 50 years, the YAI/NIPD Network has been providing the highest quality services to people with autism spectrum disorders and their families. Our Autism Advisory Council lends their expertise and diverse viewpoints to the YAI/NIPD Network and helps us to remain on the cutting edge of autism services.

JED BAKER, Ph.D.

Dr. Baker, a clinical psychologist, is Director of the Social Skills Training Program. He serves as a behavioral consultant for several New Jersey school systems, providing social skills training for students with pervasive developmental disorders and learning disabilities.

JOSEPH BUXBAUM, Ph.D.

Dr. Buxbaum is the Director of The Seaver Autism Center for Research and Treatment at Mount Sinai School of Medicine. He is also the G. Harold and Leila Y. Mathers Research Professor of Psychiatry, Neuroscience, Genetics and Genomic Sciences.

VINCENT CARBONE, Ed.D., BCBA

Dr. Carbone, a Board Certified Behavior Analyst and Director of the Carbone Clinic, has been designing learning environments for people with development disabilities for more than 30 years.

LYNDA GELLER, Ph.D.

Dr. Geller is the Director of the Institute for Cognitive Diversity at Bank Street College of Education. She was formerly Clinical Director of the Asperger Institute at the New York University Child Study Center.

TEMPLE GRANDIN, Ph.D.

Dr. Grandin, an Associate Professor of Animal Science at Colorado State University, designs humane livestock facilities. She has also written numerous best selling books about her experiences as a person with autism.

CAROL GRAY

Carol Gray is the Director of The Gray Center for Social Learning and Understanding in Michigan. She developed Social Stories™ and Comic Strip Conversations, strategies used to help people with autism communicate.

LARRY KING

Larry King has been the host of Larry King Live on CNN for nearly 30 years. He consistently raises public awareness of autism.

JOSEPH LEVY, M.D.

Dr. Levy, Director of the Division of Pediatric Gastroenterology at the NYU School of Medicine, is an expert on health issues in children with autism.

BERNICE POLINSKY

Bernice Polinsky is a parent advocate for individuals with autism spectrum disorders. Bernice is a shining example of how to effectively access services and supports to improve the quality of life for her entire family.

JENNIFER J. RAAB, J.D., M.P.A.

Jennifer Raab is the 13th president of Hunter College. She is responsible for overseeing the functions of CUNY's largest college and its various affiliates.

FRED VOLKMAR, M.D.

Dr. Volkmar is the Director of the Child Study Center at Yale University School of Medicine and Chief of Child Psychiatry at Yale-New Haven Children's Hospital. He researches the assessment and classification of ASDs.

Verbal Behavior: A Behavioral Approach to Language Instruction

by Vincent J. Carbone, Ed.D., BCBA, Director of the Carbone Clinic

In 1957, the psychologist B. F. Skinner published the book *Verbal Behavior*, which explains how people acquire language. Skinner described the process of how our verbal behavior is shaped throughout a lifetime.

Using Skinner's ideas as a guide, Dr. Jack Michael and his student Dr. Mark Sundberg began to conduct further research on the topic in the 1970s. Since that time, dozens of research articles have shown that many aspects of Skinner's analysis are correct. (These research papers have been published mainly in the journal *The Analysis of Verbal Behavior*.) In recent years, many behavior analysts have adopted Skinner's analysis as a guide for teaching language skills to children with autism and related disorders.

The treatment of language as a behavior that is influenced by the basic principles of behavior, such as reinforcement, is what sets this approach apart from other methods. The analysis emphasizes that expressive language is learned in functional behavioral categories, so assessment and treatment methods should be designed with a recognition of these categories. Dividing language into only expressive and receptive categories may not be sufficient to guide the instruction of people who don't acquire language typically. Below is a brief description of some of the categories within the behavioral approach to language.

Primary Verbal Behavior Categories

- Echoic (Vocal Imitation). Saying exactly what someone else says. Saying "juice" because someone else just said "juice."
- Mand (Request). Asking for what you want. "I would like some juice" when juice is wanted.
- Tact (Label). Naming what you see, hear, smell, taste, feel, etc. Saying "It's juice." when you see juice.
- Intraverbal ("wh" questions). Responding to what others say. "I drank some juice" in response to being asked what you drank at lunch.

Researchers and practitioners who use this analysis have learned that when a person learns a word as an echo, he or she may need additional teaching in order to learn the word as a request, label or as a response to what others say. Language programs that emphasize vocabulary development and assume that teaching only one category, such as labeling, will lead to requesting or answering questions, may fail to teach a complete language repertoire.

Programs for children who do not acquire language typically are guided by an assessment of verbal behavior across the different categories. Dr. Mark Sundberg has recently developed an assessment instrument called the Verbal Behavior Assessment and Program Placement Program (VB-MAPP) that can be used to conduct a comprehensive assessment of language development. Based upon the assessment, treatment in these programs emphasizes transferring skills across the different categories. So children who at first are only able to imitate or echo what others say can be taught the meanings of the words. To do this, practitioners can use behavioral procedures to transfer the skills across the categories and broaden the verbal repertoire of the child. For example, a child with autism might echo the word "jump," but he won't say it when he wants to bounce on a trampoline. So an instructor can teach the more functional form of "jump" as a request by building the motivation for jumping, prompt the response and



Dr. Carbone speaks on Applied Behavior Analysis at a YAI Autism Conference.

then provide the opportunity to jump when the child says the word. Through the use of a prompt fade procedure, the child can then be taught to spontaneously request "jump." Now the child has learned another meaning of the word jump, as well as an effective way to communicate with other people.

Good listening skills are also essential to be an effective communicator and a comprehensive language program must teach both speaker and listener behaviors.

Dozens of research studies have demonstrated the accuracy of the behavioral analysis of language and its benefits for people with autism and other people who don't acquire language typically. While additional research is needed to verify the effectiveness of the approach, what we currently know does help many people with autism and related disorders learn to communicate and express themselves.



Autism Matters is made possible
by the New York City Council's
"1 in 150" Autism Initiative



The YAI/NIPD Network is a proud partner of the New York City Council in its "1 in 150" Autism Initiative. The Autism Initiative offers wraparound services for children in after-school and summer programs in every City Council district and also supports a public-awareness campaign, including educational and training seminars in every City Council district. Thanks to the recent renewal of the initiative, which began in 2007 under the leadership of Council Member David I. Weprin, chair of the New York City Council Finance Committee and Council Member Hiram Monserrate, chair of the Council's Veterans Committee and the UJA-Federation of New York, the lives of families who deal with autism and autism spectrum disorders on a daily basis have been positively altered.