

# Developing Communication

HyeKeung Seung is improving the language skills of children with autism

BY VALERIE ORLEANS vorleans@fullerton.edu

Children with autism find social interaction a challenge; for the 50 percent of those who are non-verbal, that challenge seems insurmountable.

HyeKeung Seung should know. As associate professor of human communications studies, Seung's research focuses on helping those children and their parents to communicate. Presently, she is working on language development with children who speak 50 words or less.

"I see these children three times a week," she said. "I work on teaching them vocal sounds through play."

Starting with simple sounds—"ma," "mu" and "me"—Seung tries to teach children that simple consonant and vowel sounds can be translated into words—"ba" for ball, "bu" for bubbles and so on.

"It's very labor intensive," said Seung, who is assisted by undergraduate students and the children's parents. "We videotape the sessions to show progress. We also train parents so they can continue the exercises at home."

So far, parents report that the participating children are vocalizing more or attempting to make sounds.

"Some reports indicate that about 50 percent of autistic children are non-verbal," Seung explains. "Autism is a spectrum disorder, meaning that individuals function at different levels. Some with autism are brilliant while others are almost incapacitated. Everyone with autism experience problems with social skills, and inappropriate behaviour -- talking loudly in church, at the movies or in other public settings, or speaking in monotones. Because they aren't attuned to people or their social settings, they often lag behind their age group in acquiring speaking, comprehension and other skills."

Seung also is developing a support group for Korean Ameri-

can parents of autistic children. Supported by a grant from the Yen Do scholarship fund in the College of Communications, Seung held her first meeting in June.

"The women whose children I was working with asked me to start a group," she said. There is a large Korean population in Fullerton, Seung explained, and "there is so much erroneous information out on the web."

"Well-educated parents are quick to research different interventions and treatments," she said. "But, like many things on the web, the studies found there are not always evidence-based."

The group meets monthly and Seung said she hopes to start a group for Vietnamese American parents soon.

In another study, Seung is working with higher functioning autistic children on the

relationship between the role of language and "theory of mind," in conjunction with Hyeonjin Lee, a colleague from YoungNam University in Korea.

"Even though we can't see what others think, a 'theory of mind' approach allows us to infer their meaning based on their beliefs, desires and emotions," Seung said. "Autistic children are socially naïve. They often behave inappropriately and are teased by their peers. They don't perceive the subtleties of communication."

The researchers tease out language skills by showing the children drawings and asking them to interpret. For example, one set of cards shows children with a sandcastle, children with a ball, and children pushing a ball. The researcher takes the cards away and asks: "What was the boy pushing?"

They are also focusing on the differences between Korean speakers and English speakers.

"We're trying to see if there are any linguistic differences for children with autism who speak different languages," she said, adding that she and Lee will present their results at a conference in Korea next year. *Inside*



Seung, left, helps Julianne Kim pronounce words using a toy.

## Faculty Conduct Autism Research and Outreach

BY MIMI KO CRUZ mkocruz@fullerton.edu

Because autism is treatable, researchers across the campus are addressing it through studies and projects to help children with autism and their families. Here are a few examples:

**Suzanne Robinson**, assistant professor of special education, is focusing on the dissemination of research-based interventions for children with autism.

"Researchers have done an amazing job discovering a number of extremely effective intervention techniques, particularly in the areas of language, social skills and challenging behaviors," she said. "Unfortunately, few people are truly capable of implementing these interventions successfully. For this reason, it is extremely important that we work to get research-based practices into the hands of those you need it most—parents and teachers."

To that end, Robinson is investigating video-based training programs that are effective and efficient so that parents, teachers, speech and language pathologists and others can quickly learn the skills necessary to improve the lives of children with autism and their families, she said.

"It is my hope that by continuing this research, parents and teachers will no longer have to pay exorbitant amounts of money or wait 10 years for quality interventions to filter into their communities, as many have experienced, but instead will have appropriate access to state-of-the-art strategies hot off the press," Robinson said.

**Nancy L. Segal**, professor of psychology, and **Aaron T. Goetz**, assistant professor of psychology, plan to examine the cooperative eye hypothesis (which states that the sclera—the white of the eyes—evolved to be more visible in humans than in any other species because it enhanced cooperation and communication through facilitating gaze direction and joint attention) in adults and children who have autism or sensory processing disorder (a neurological disorder causing difficulties with processing information from the five senses) and children who have neither condition.

"Visible, white sclera provide a contrast with the pigmented iris, allowing others to follow our gaze," Goetz explained. "Our species is characterized by mutual social interactions, and this is easier when individuals can follow each other's eyes."

Therefore, he and Segal will conduct a series of experiments using stuffed animals—some whose eyes will be manipulated to appear more cooperative and others less cooperative.

Because those with autism are socially and communicatively impaired, they might not show a preference for the stuffed animals with "cooperative" eyes," Goetz said. Such a finding "could be used to better design toys for children with autism."

**Susan M. Larsen**, assistant professor of human services, has a 10-year-old son who was diagnosed with autism when he was 18 months. She wrote her doctoral dissertation on autism and said the debate regarding how people become autistic

"rages on among researchers and the medical profession."

Whatever the reason, many adults with severe autism live in group homes and Larsen volunteers her time working for organizations that serve them. She spends Saturdays visiting 14 adults, ages 20 to 67, who have autism. "They help me more than I help them," she said. ■



Suzanne Robinson



Nancy L. Segal



Aaron T. Goetz



Susan M. Larson

### A Look at Autism

- Autism spectrum disorders are a group of developmental disabilities defined by significant impairments in social interaction and communication and the presence of unusual behaviors.
- One in 150 children in the U.S. has autism.
- The number of people, ages 6 through 21, who receive services for autism increased from 22,664 in 1994 to 193,637 in 2005.
- Autism was first diagnosed in 1943 by Dr. Leo Kanner.
- Boys are four times as likely to be diagnosed with autism.
- A child who is diagnosed with autism can be gifted or severely challenged.

Sources: Centers for Disease Control, and the Autism Developmental Disabilities Monitoring Network's Community Report.