

NEWS

For children with autism, multiple languages may be a boon

BY ANN GRISWOLD

25 JULY 2016

Oscar, 6, sits at the family dinner table and endures the loneliest hour of his day. The room bustles with activity: Oscar's sister passes plates and doles out broccoli florets. His father and uncle exchange playful banter. Oscar's mother emerges from the kitchen carrying a platter of carved meat; a cousin pulls up an empty chair.

"Chi fan le!" shouts Oscar's older sister, in Mandarin Chinese. *Time for dinner!*

"Hao," her grandfather responds from the other room. *Okay.*

Family members tell stories and rehash the day, all in animated Chinese. But when they turn to Oscar, who has autism, they speak in English.

"Eat rice," Oscar's father says. "Sit nice."

Except there is no rice on the table. In Chinese, 'eat rice' can refer to any meal, but its meaning is lost in translation.

Pediatricians, educators and speech therapists have long advised multilingual families to speak one language — the predominant one where they live — to children with autism or other developmental delays. The reasoning is simple: These children often struggle to learn language, so they're better off focusing on a single one.

However, there are no data to support this notion. In fact, a handful of studies show that children with autism can learn two languages as well as they learn one, and might even thrive in multilingual environments.

Lost in translation:

It's not just children with autism who miss out when parents speak only English at home — their families, too, may experience frustrating miscommunications. Important instructions, offhand remarks and words of affection are often lost in translation when families swap their heritage language for English, says **Betty Yu**, associate professor of special education and communicative disorders at San Francisco State University.

Yu, who is fluent in both English and Chinese, detailed Oscar's experience in the *Journal of Autism and Developmental Disorders* earlier this year¹. (The details of dinner and other interactions from Oscar's everyday life described in this article are from Yu's case report.) The report hits home for researchers who study bilingual families of children with autism.

“One mother said to me, ‘Italian is the language of my heart and my home.’ She was obviously very sad that she couldn't share that aspect of her identity with her daughter,” says **Sue Fletcher-Watson**, chancellor's fellow in developmental psychology at the University of Edinburgh in the United Kingdom.

The advice to stick with a language that the family doesn't speak well only intensifies the alienation experienced by these children, Fletcher-Watson and others say. “You're taking a child who is already socially isolated and you're making them even more isolated,” she says.

The kids are all right:

The science — what little exists — in fact suggests that these children should embrace multilingualism.

“There are few studies on bilingualism in children with developmental disorders, and even fewer with appropriate control groups,” says **Napoleon Katsos**, lecturer in linguistics at the University of Cambridge in the United Kingdom.

In typical children, learning a second or third language hones critical thinking and executive function — a set of skills that includes attention, self-control and mental flexibility². It also gives them an edge in reading and writing³.

Children with developmental delays might reap those same benefits. Bilingual children with autism have **language skills on par with monolingual children** with the condition, and they acquire social and cognitive skills at the same rate^{4,5,6}. But these children are twice as likely as monolingual children with autism to **use gestures** such as pointing when they communicate, according to a 2012 study. This finding suggests that they have a strong command of joint attention and are adept at nonverbal communication.

The standard tools for evaluating a child's social and communication skills are in English, and may

underestimate the skills of bilingual children with autism, says Sandra Vanegas, a postdoctoral researcher in **Kruti Acharya**'s lab at the University of Illinois at Chicago.

At the **2016 International Meeting for Autism Research** in Baltimore, Vanegas presented preliminary results showing that a picture book a child narrates in his native language can more accurately assess his communication skills.

This approach could be particularly useful for autism clinicians in Europe, where dozens of languages are spoken, says Fletcher-Watson.

"There are some good reasons to be optimistic about the potential benefits of bilingualism," Fletcher-Watson says. "There's a big overlap between the areas that we think are helped by bilingual exposure and the areas where children with autism struggle."

Things left unsaid:

Oscar, now 7, was born in California a few years after his family emigrated from China. At the time, the other members of his household, like **more than 24 million other children and adults** in the United States, spoke little English at home.

But when Oscar was diagnosed with autism at age 2, pediatricians, speech therapists, neighbors and friends all advised his family to pick a single language to communicate with him. And that language, they all agreed, should be English.

English is the ticket to success in school, Oscar's teachers said. A prerequisite to participating in state-funded therapies, his therapists said. The predominant language of Oscar's suburban neighborhood and of the children who play there, his neighbors said.

By the time Oscar turned 3, his family had committed to interacting with him only in English. Yet they sometimes seemed to be at a loss when trying to communicate with him. "There were things that the family didn't know how to say very smoothly or at all in English, so they had to talk around the issue or just drop it," Yu says.

The better scenario would have been to speak to Oscar in Chinese and let him learn English from the outside world, says **Johanne Paradis**, professor of linguistics at the University of Alberta in Canada. Retaining strong cultural and family ties will only help parents connect with their children later on, she says.

"It's easy to say when a child is diagnosed with autism at age 3 that the family should switch to English at home," Paradis says. "But when that child is 12, they're going to have more complex ideas to express and the parent won't be able to talk with them freely."

After dinner, Oscar and his grandfather are seated a couple of feet apart on the living room floor, playing with a train set. But they might as well be separated by 2 miles, for all that they can say to each other.

It's 8 o'clock — time to decide which family member will sleep in Oscar's room and make sure he is safe.

The grandfather leans in and shakes Oscar's hands, waiting for the boy to look up. "Oscar, with who sleep?" he asks.

Oscar pauses; glances down at the trains. "Oscar sleep," the boy echoes, as he does when he struggles to understand.

The grandfather tries again. "You want with who sleep?"

"With Daddy," Oscar says, finally.

REFERENCES:

1. Yu B. *J Autism Dev. Disord.* **46**, 424-435 (2016) [PubMed](#)
2. Crivello C. *et al. J. Exp. Child Psychol.* **141**, 121-132 (2016) [PubMed](#)
3. Swanson H.L. *et al. J. Learn. Disabil.* Epub ahead of print (2015) [PubMed](#)
4. Uljarevi? M. *et al. J. Child Psychol. Psychiatry* Epub ahead of print (2016) [PubMed](#)
5. Hambly C. and E. Fombonne *J. Autism Dev. Disord.* **42**, 1342-1352 (2012) [PubMed](#)
6. Petersen J.M. *et al. J. Autism Dev. Disord.* **42**, 1499-1503 (2012) [PubMed](#)