

Ask the Experts

How does multilingualism affect the communication of children with neurodevelopmental disorders?

Dr Özge Öztürk¹, Dr Jenny Gibson², Katie Howard¹ and Dr Napoleon Katsos¹

¹Department of Theoretical and Applied Linguistics and
²Faculty of Education, University of Cambridge

Speaking more than one language can pose both a challenge and an opportunity for multilingual families with children with neurodevelopmental disorders. Take the case of Jose, reported in Fahim and Nedwick's study (2014). Diagnosed with autism spectrum disorder (ASD) and delayed language development, Jose lives with his bilingual English-Spanish family. In addition to all the critical decisions that a monolingual family with a child diagnosed with ASD has to take, Jose's parents must also consider language use at home and in the community: they would like Jose to learn English so he can do well at school and participate in the English-speaking society in which they live, but they also value Spanish – Jose's mother's native language. Jose is also cared for by his Columbian grandmother, whose English is limited.

Around the world, bilingual families of children like Jose may be vulnerable to well-intended but ill-informed advice to abandon their home language to facilitate the development of the community's dominant language (Uljarevic et al, 2016; Hampton et al, 2017; RCSLT, 2006).

But what is the scientific evidence to help families make the best decision on language use? Despite the growing prevalence of bilingual children in UK primary schools (NALDIC, 2014) and elsewhere, there is little research into bilingualism in children with neurodevelopmental disorders, which affects an estimated 5–12 % in the UK (Law, 2000).

Until recently, there was much uncertainty about the evidence related to bilingualism and neurodevelopmental disorders. However, a recent systematic review by Uljarevic et al (2016) reviewed 50 studies in this area (38 on multilingualism and communication disorders, 10 on ASD, and two on intellectual disabilities), and drew firm conclusions about the nature of these interactions. Synthesising the existing evidence, they concluded that: 1) there is no evidence that bilingualism has negative effects on various aspects of functioning across a range of neurodevelopmental disorders; 2) in the case of ASD, positive effects of bilingualism on communication and social functioning have been observed; and 3) 'forced monolingualism' may be

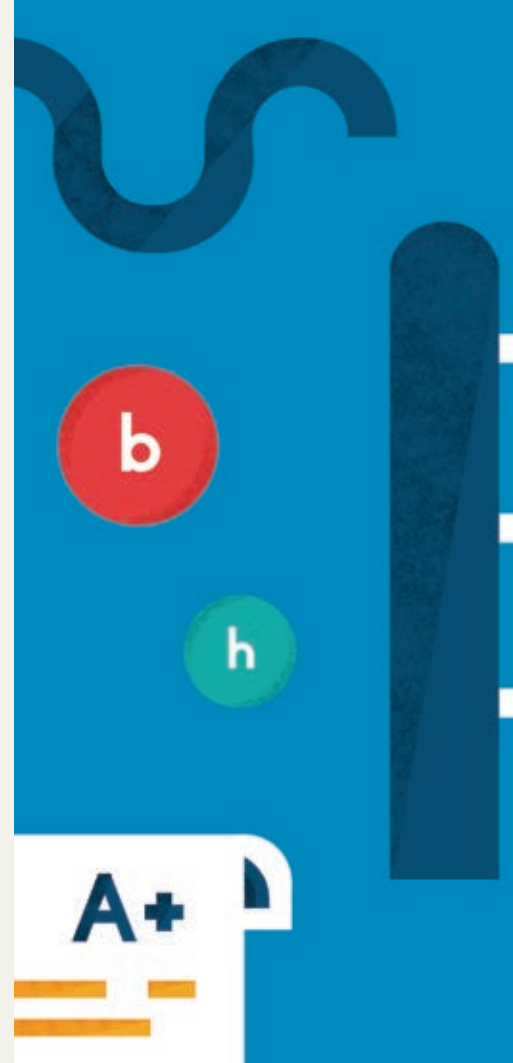
detrimental to communication skills.

Here, we explore these three arguments, followed by a summary of the UK context and recommendations for SLTs.

Bilingualism and neurodevelopment

A prevailing belief among parents and some professionals is that if learning one language is hard for the child, then two languages will be more difficult to master. The assumption is that if the family switches to the dominant language, the child's language may develop more quickly. The family is therefore advised

“There is no evidence of systematic negative effects to raising a child with a neurodevelopmental disorder bilingually”



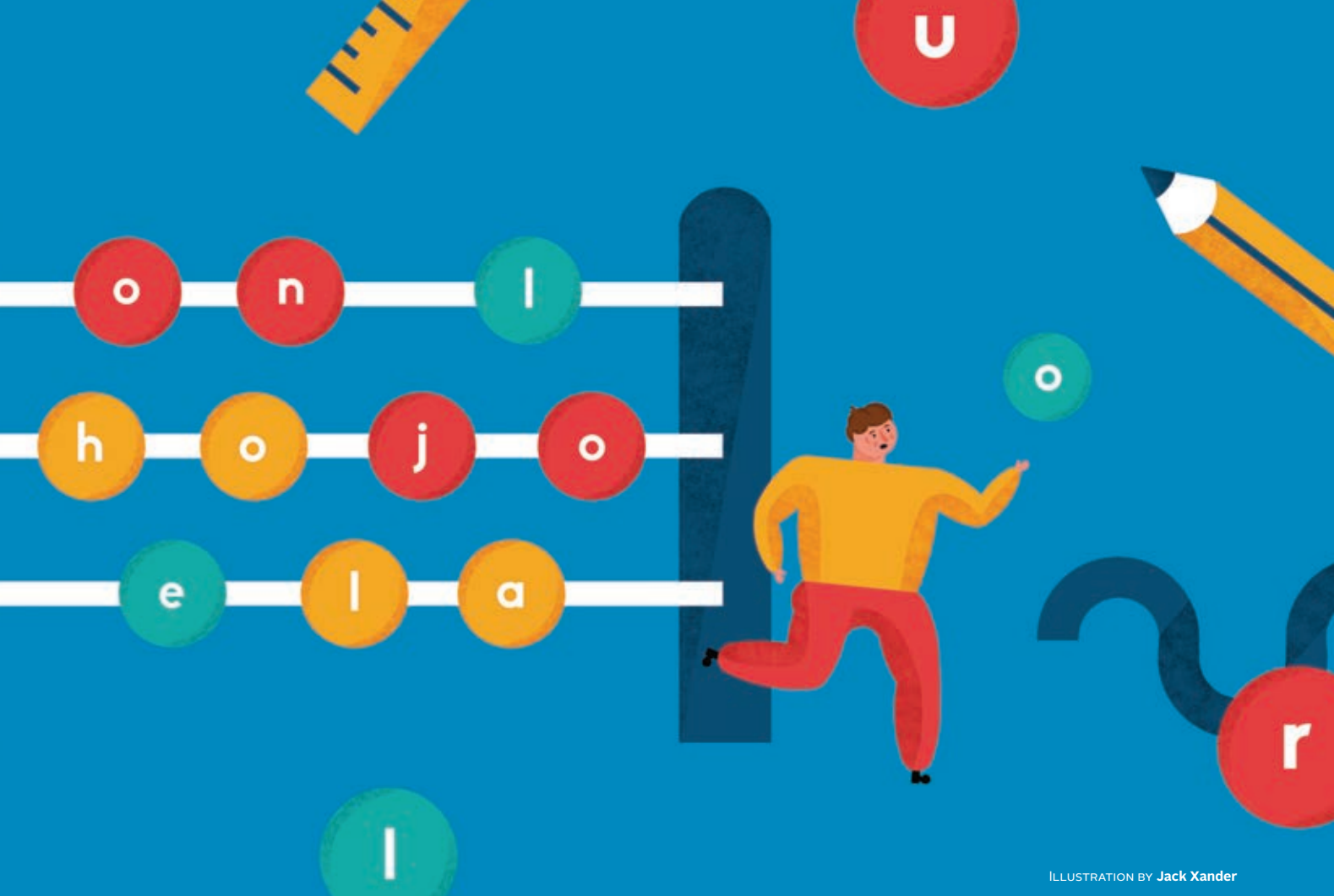


ILLUSTRATION BY Jack Xander

to keep to a single language – which is almost always the dominant one in the society. This means that families who have been using a minority language at home are advised to switch to the majority language – which they may not speak with native-like competence – to help bolster the child’s communicative ability (Kohnert, 2007; Hampton et al, 2017). An additional reason for this recommendation is that it is often difficult to find therapy materials in the child’s home language, as well as bilingual/multilingual SLTs.

The research shows that children with a variety of neurodevelopmental disorders, such as Down’s syndrome (Kay-Raining Bird et al, 2005), attention deficit hyperactivity disorder (Bialystok et al, 2016), autism (Reetzke et al, 2015) and hearing impairment (Waltzman et al, 2003), can learn two languages. Monolingual children with neurodevelopmental disorders may develop language skills, although at a slower pace and perhaps not to the same level as their unaffected peers. Similarly, bilingual children with neurodevelopmental disorders learn two languages relatively more slowly and perhaps not to the same level as their typically developing bilingual peers, but they match monolingual peers with

a neurodevelopmental disorder, given similar opportunities. In other words, language development can be typical or atypical irrespective of the number of languages the child is exposed to (Cruz-Ferreira, 2011; Kohnert, 2007).

Benefits of bilingualism

Recent research on bilingualism in typically developing children has shown that learning two or more languages at once is associated with multiple benefits, as long as the child has sufficient support to maintain his or her languages (Adesope et al, 2010). In typically developing children, when compared with their monolingual peers, bilingualism has been associated with higher educational achievement (Taylor, 2013), improved social use of language (Antonioniou & Katsos, 2017) and enhanced attention, memory, cognitive flexibility, symbolic representation and other forms of a set of skills known as executive control (Bialystok et al, 2009). These benefits are most likely due to the increased cognitive demand required for managing multiple languages on a daily basis.

‘Forced monolingualism’

Advising multilingual families to adopt a monolingual approach with children

with neurodevelopmental disorders can be problematic, as there is evidence to suggest that parents speaking a non-native language may result in inadvertent negative effects on the child’s social and linguistic development (Fernandez y Garcia et al, 2012). Being monolingual in a bilingual family or community would inevitably limit a child’s communication opportunities, negate previous language experiences, deny full participation in family and community life, and effectively turn a disability into a handicap. On the other hand, developing both languages would allow the child to take full advantage of previous experiences with language and to increase the opportunities to use language for meaningful interactions within the family and community. Consequently, reducing the number of languages that a bilingual child with a neurodevelopmental disorder is exposed to does not alleviate the language difficulties; it only creates a monolingual child with a neurodevelopmental disorder.

The UK context

The RCSLT’s guidance on best practice (2006; p270) and the good practice report (2007) prepared by the RCSLT Specific Interest Group in Bilingualism state that the clinically preferred practice is to →

utilise all of the child's daily languages in therapy. The report also recommends that the SLT should empower parents and families to use their home language, and should discuss with them the implications of their language choices for the child's therapy. In addition, Stow & Pert's SLT assessment and intervention report (2015) highlights that, although it may be a common belief among parents that exposure to two (or more) languages may confuse their child, families should be reassured by SLTs that the evidence base does not support this claim.

Recommendations

A number of useful insights emerge from Uljarevic et al's (2016) systematic review to help support practitioners working with bilingual children with neurodevelopmental disorders. First, although it is important to bear in mind that bilingual experience can vary hugely from individual to individual, research shows that there is no evidence of systematic negative effects to raising a child with a neurodevelopmental disorder bilingually. Secondly, discussions with parents about the potential negative outcomes of restricting language in bilingual families are encouraged. Finally, along with Baker (2012), we suggest that the language use of all stakeholders – teachers, SLTs, family members, peers and, most importantly, the children themselves – is considered when making the important decision about whether to pursue monolingualism or bilingualism.

Current research confirms that assessment and intervention in speech and language therapy for bilingual children should target each of the child's languages. This ensures not only a valid assessment of the child's true linguistic skills but also the best possible therapy outcomes. For example, Seung et al's study (2006) demonstrates that significant gains can be made in a child's dual language development when a culturally sensitive intervention is provided in both languages. Such findings dovetail with the widely held consensus that speech and language therapy should use a holistic approach to meeting the communication needs of children with neurodevelopmental disorders, rather than the traditional approach of providing interventions within isolated treatment contexts (Fey and Stalker, 1986).

Ultimately, intervention success depends on the child's ability to generalise

communicative attainments in therapy across various communication settings and partners, especially within the family and community.

The issues raised here will be explored in depth as part of the AHRC-funded 'Multilingualism: Empowering Individuals and Transforming Societies' project (meits.org). The RCSLT is also currently working on clinical resources regarding bilingualism, which will be published on their website later this year. ■



References & resources

- Adesope OO, et al. A systematic review and meta-analysis of the cognitive correlates of bilingualism. *Review of Educational Research* 2010; 80(2): 207-245.
- Antoniou K & Katsos N. The effect of childhood multilingualism and bilingualism on implicature understanding. *Applied Psycholinguistics* 2017; 38(4): 787-833.
- Baker D. Particular Polyglots: multilingual students with autism. *Disability and Society* 2012; 28(4): 527-541.
- Bialystok E, et al. Bilingual minds. *Psychological Science in the Public Interest* 2009; 10: 89-129.
- Bialystok E, et al. Interaction of bilingualism and Attention-Deficit/Hyperactivity Disorder in young adults. *Bilingualism: Language and Cognition* 2017; 20(3): 588-601.
- Kay-Raining Bird E, et al. The language abilities of bilingual children with Down syndrome. *American Journal of Speech-Language Pathology* 2005; 14(3): 187-199.
- Cruz-Ferreira, M. 'Recommending Monolingualism to Multilinguals – Why, and Why Not.' [Blog post] In: *The ASHA Leader Blog*. 2 August 2011. Available from: blog.asha.org/2011/08/02/recommending-monolingualism-to-multilinguals-why-and-why-not/
- Fahim D & Nedwick K. Around the World: Supporting Young Children with ASD Who Are Dual Language Learners. *Young Exceptional Children* 2014; 17(2): 3-20.
- Fernandez y Garcia E, et al. Unintended consequences: An ethnographic narrative case series exploring language recommendations for bilingual families of children with autistic spectrum disorders. *Journal of Medical Speech-Language Pathology* 2012; 20: 10-16.
- Fey ME & Stalker CH. A hypothesis-testing approach to treatment of a child with an idiosyncratic (morpho) phonological system. *Journal of Speech and Hearing Disorders* 1986; 51(4): 324-336.
- Hampton S, et al. Autism and Bilingualism: Exploring Parents' Perspectives and Experiences. *Journal of Speech, Language, and Hearing Research* 2017; 60(2): 435-446.
- Kohnert, K. Evidence-based practice and treatment of speech sound disorders in bilingual children. *Perspectives on Communication Disorders and Sciences in Culturally and Linguistically Diverse Populations* 2007; 14(2): 17-20.
- Law J, et al. Prevalence and natural history of primary speech and language delay: Findings from a systematic review of the literature. *International Journal of Language and Communication Disorders* 2000; 35(2): 165-88.
- NALDIC. EAL Statistics. *The latest EAL facts and figures*. Edinburgh: The National Association for Language Development in the Curriculum, 2014. Retrieved from: www.naldic.org.uk/research-and-information/eal-statistics
- Reetzke R, et al. Communicative development in bilingually exposed Chinese children with autism spectrum disorders. *Journal of Speech, Language, and Hearing Research* 2015; 58(3): 813-825.
- RCSLT. *Communicating Quality 3*. London: Royal College of Speech and Language Therapists, 2006.
- RCSLT Specific Interest Group in Bilingualism. *Good practice for speech and language therapists working with clients from linguistic minority communities*. London: RCSLT, 2007. Retrieved from: www.rcslt.org/members/publications/publications2/linguistic_minorities
- Seung H, Siddiqi S & Elder JH. Intervention outcomes of a bilingual child with autism. *Journal of medical speech-language pathology* 2006; 14(1): 53-63.
- Stow C & Pert S. *SLT assessment and intervention: Best practice for children and young people in bilingual settings*. London: RCSLT, 2015.
- Taylor F. *Multilingual Britain*. London: British Academy, 2013. Retrieved from: www.britac.ac.uk/sites/default/files/Multilingual%20Britain%20Report.pdf
- Uljarevic M, et al. Practitioner Review: Multilingualism and neurodevelopmental disorders – an overview of recent research and discussion of clinical implications. *Journal of Child Psychology and Psychiatry* 2016; 11: 1205-1217.
- Waltzman SB, et al. Second oral language capabilities in children with cochlear implants. *Otology & Neurotology* 2003; 24(5): 757-763.

