

Autism and Bilingualism: Evidence and Recommendations for Clinical Practice

Bilingualism does not negatively impact autistic people and may provide benefits for cognitive and socio-emotional development. It is an essential part of someone's identity.

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Dr Rachael Davis - Salvesen Mindroom Research Centre, University of Edinburgh
Dr Bérengère G. Digard - Patrick Wild Centre, University of Edinburgh

Dr Miriam Bindman - Principal Clinical Psychologist, Great Ormond St Hospital for Children
Adriana Ferrari - Autism Practitioner, Hull & East Riding Neurodiversity Service
Victoria Roberts - Speech & Language Therapist, Rotherham NHS Foundation Trust
Luisa Zenobi-Bird - Specialist Speech & Language Therapist, Oxleas NHS Foundation Trust

Need to know

Autism is a lifelong neurodevelopmental condition, with prevalence estimated to be at least 1 in 100 people worldwide. There is debate regarding the language used when describing autism. Here we use identity-first language (e.g. “autistic person”) as opposed to person-first language (e.g. “person with autism”) to respect the preference of the majority of autistic people^{1,2}.

Bilingualism is the knowledge of more than one language, signed or spoken, regardless of the level of proficiency and the age at which a language is acquired. It is estimated that at least half the world's population is bilingual³.

Does bilingualism have negative effects for autistic people?

Recent research suggests that bilingualism does not cause delays across any cognitive domain and could provide opportunities to positively influence cognitive, cultural, and social development. The research available contradicts the widespread concerns that being exposed to several languages at home or school could cause additional delays for autistic children's cognitive and language development⁴, and that a monolingual environment would be better for autistic children⁵.

Autistic behaviours: The research currently available has found that bilingualism does not have a negative effect on any core diagnostic behaviours⁵.

Language: Autistic people can demonstrate a wide range of language abilities, ranging from highly fluent language use to minimally verbal⁶. It is well established in the literature that bilingualism does not cause additional difficulties in language development for autistic children⁷. While reports show that bilingual children can unintentionally mix languages or have smaller vocabularies early in childhood, this is also typical for most neurotypical bilingual children, and does not often last⁸.

Cognitive skills: Research has consistently found that bilingualism does not delay the development of cognitive skills in autistic children, including general executive skills⁹ such as inhibition¹⁰ and switching skills¹¹, and aspects of social cognition¹². Evidence in both western and non-western populations suggests bilingualism could also advantage autistic children in one or more of these skills, possibly in a long-lasting way¹³.

Social skills: Recent findings suggest that learning two languages from early childhood can support autistic people's social and social-cognitive skills, especially the ability to understand other people's mind and point of view (perspective-taking)¹³.

Daily life and autistic perspectives: New research asked autistic young people and adults how they feel about being bilingual. Adults told researchers that bilingualism helps autistic people connect with their identity and communities (both autistic and non-autistic) worldwide¹³. Bilingualism can increase autistic people's self-esteem, help them to better understand themselves, and access leisure, education, and professional opportunities¹⁴. Autistic children and young people are also positive about bilingualism¹⁵. They see it as a tool for authentic self-expression and making new friends. Acknowledging dual cultural identities is important, and if children aren't able to join in with their family, they can feel isolated. Some young people see bilingualism as a "special code", increasing closeness with their parents¹⁵.

What we recommend

Bilingualism is a valuable tool that enriches and facilitates cultural, social, and lived experiences for autistic people. It is crucial that autistic people are provided with equal access to language learning and are appropriately supported in doing so. Recommending parents to raise their autistic child monolingually should not be done lightly – the languages a child can and cannot understand will impact their future and the functioning of the whole family. As such, monolingualism should not be chosen, unless it is the best solution for family functioning. Providing parents with a science-led evidence base will enable them to make informed decisions with their child about their language environment.

Clinical support for autistic bilingual people

The role of practitioners is crucial in bilingual families' decisions to maintain bilingualism in the home, and to speak their home language with their autistic child¹⁶. It is important for clinicians supporting the child to prioritise the home languages, which will facilitate the child's access to language and culture¹⁷. Practitioners have identified several current barriers to optimal support¹⁸:

- There can be uncertainties as to whether clinicians are providing the most adapted advice. There is a need for up-to-date, evidence-based resources to guide them when advising bilingual autistic children and their families.
- Practitioners also have concerns about the limited resources and interventions available in other languages, which could be challenging for parents less proficient or confident in communicating in English.
- There is a clear gap in cultural diversity training. More cultural awareness is needed to better cater for the child and family's needs and goals.
- Practitioners have concerns about the use of interpreters; the availability of an interpreter is often dependent on the type of language and its demand in the local area.

Being aware of these issues and limitations will help us work together, clinical practitioners and researchers, towards better support for autistic bilingual people.

Research with minimally verbal people

There is currently little to no data on the experiences of minimally verbal autistic people and autistic people with learning difficulties. A priority for research is to develop specific assessments for children with complex needs to capture receptive language and cognitive abilities. Recent evidence shows that minimally verbal autistic children can understand multiple languages, and if they go on to produce more language, they can also do so in multiple languages.

References

1. Gernsbacher, M. A. (2017). Editorial perspective: The use of person-first language in scholarly writing may accentuate stigma. *Journal of Child Psychology and Psychiatry*, 58(7), 859–861.
2. Kenny, L., Hattersley, C., Molins, B., Buckley, C., Povey, C., & Pellicano, E. (2016). Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism*, 20(4), 442–462.
3. Grosjean, F. (2010). *Bilingual*. Harvard university press.
4. Hampton, S., Rabagliati, H., Sorace, A., & Fletcher-Watson, S. (2017). Autism and bilingualism: A qualitative interview study of parents' perspectives and experiences. *Journal of Speech, Language, and Hearing Research*, 60(2), 435–446.
5. Wang, M., Jegathesan, T., Young, E., Huber, J., & Minhas, R. (2018). Raising children with autism spectrum disorders in monolingual vs bilingual homes: A scoping review. *Journal of Developmental & Behavioral Pediatrics*, 39(5), 434–446.
6. Silleresi, S., Prevost, P., Zebib, R., Bonnet-Brilhault, F., Conte, D., & Tuller, L. (2020). Identifying language and cognitive profiles in children with ASD via a cluster analysis exploration: Implications for the new ICD11. *Autism Research*, 13(7), 1155–1167.
7. Drysdale, H., van der Meer, L., & Kagohara, D. (2015). Children with autism spectrum disorder from bilingual families: A systematic review. *Review Journal of Autism and Developmental Disorders*, 2(1), 26–38.
8. Byers-Heinlein, K., & Lew-Williams, C. (2013). Bilingualism in the early years: What the science says. *LEARNing Landscapes*, 7(1), 95–112.
9. Sharaan, S. (2020). *Bilingualism meets autism: An investigation of executive function profiles in English-Arabic children* (Doctoral dissertation, University of Edinburgh, Edinburgh).
10. Sharaan, S., Fletcher-Watson, S., & MacPherson, S.E. (2020). The impact of bilingualism on the executive functions of autistic children: A study of English-Arabic children. *Autism Research*.
11. Montgomery, L., Chondrogianni, V., Fletcher-Watson, S., Rabagliati, H., Sorace, A., & Davis, R. (2021). Measuring the Impact of Bilingualism on Executive Functioning Via Inhibitory Control Abilities in Autistic Children.
12. Digard, B. G. (2020). *Bilingualism in autism: A neurocognitive investigation of the influence of bilingualism on perspective-taking in autistic adults* (Doctoral dissertation, University of Edinburgh, Edinburgh).
13. Digard, B. G., Sorace, A., Stanfield, A., & Fletcher-Watson, S. (2020). Bilingualism in autism: Language learning profiles and social experiences. *Autism*, 24(8), 2166–2177.
14. Nolte, K., Fletcher-Watson, S., Sorace, A., Stanfield, A., & Digard, B. G. (2021). Perspectives and experiences of autistic multilingual adults: A qualitative analysis. *Autism in Adulthood*.
15. Davis, Morris, Sorace & Fletcher-Watson (2023). Understand the perspectives of autistic bilingual children. Preprint.
16. Kay-Raining Bird, E., Genesee, F., & Verhoeven, L. (2016). Bilingualism in children with developmental disorders: A narrative review. *Journal of Communication Disorders*, 63, 1–14.
17. Davis R., Fletcher-Watson S., & Digard B. G. (2021) Autistic People's Access to Bilingualism and Additional Language Learning: Identifying the Barriers and Facilitators for Equal Opportunities. *Front. Psychol.* 12:741182.
18. Davis, R., Mohammed, F. B., & Sargent L. (2020) Practitioner perspectives towards autism and bilingualism on socio-cultural factors and family experiences.

