

# Charting the Impact of Bilingualism on Language and Cognitive Development in Autistic Children

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Autism Spectrum Disorder (hereafter autism) is a neurodevelopmental condition characterised by lifelong difficulties in social and communicative domains, restricted, repetitive behaviours and interests and sensory and perceptual symptoms (American Psychiatric Association, 2013). Autism is associated with intellectual disability in around 55% of cases, and language delay is the most common cause of initial referral to specialist services in children.

There is a very little empirical literature addressing how bilingualism might impact upon those with autism. What limited literature exists can be summarised as follows: bilingual exposure is unlikely to lead to poorer development of language in autistic children and could provide an advantage in social and communicative domains. However, many parents are still concerned about the potentially harmful effects of bilingualism on development.

The overall aim of this research is to explore the question: Does bilingualism offer an advantage for autistic children and their families?

The data we have collected will be the largest and most comprehensive study of bilingualism with autistic children to date. We will have data from 51 autistic and 55 neurotypical children aged 5-13 who are being raised in a bilingual environment. Children complete a comprehensive task battery consisting of standardised cognitive assessments and novel eye tracking tasks. We measure autism profiles, behavioural profiles, social cognition, executive function, language and IQ and bilingual exposure. In addition, we collect data related to cultural identity and family wellbeing using direct assessments and parent questionnaires.

Students will have the opportunity to choose from the wide range of measures that are available and formulate a research question based on their interests.

Example research questions could include, but are not limited to:

- How does bilingualism affect facets of cognition in autistic children?
- To what extent does growing up in a bilingual environment provide benefits in social and communicative domains?
- To what extent does growing up in a bilingual environment provide benefits in executive function domains?
- Does bilingual exposure result in bilingual abilities in children with autism, regardless of their own expressive language level?

This research has both practical and theoretical implications:

- This study takes an important step towards answering the question of whether bilingualism can provide a naturalistic opportunity to further develop social and cognitive skills. The work will have implications for future clinical practise and will contribute to an evidence base for parents to make an informed choice about bilingualism for their child.
- The study allows us to begin thinking more generally about how enriched environments can affect cognitive processes and the relationship between changes across domains.

**Useful courses:** Generalised Regression Models

References:

- [1] Beauchamp, M. L., & MacLeod, A. A. (2017). Bilingualism in children with autism spectrum disorder: Making evidence-based recommendations. *Canadian Psychology/Psychologie Canadienne*, 58(3), 250.
- [2] 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.