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**Citation for published version:**

Rabagliati, H, Sorace, A, Hampton, S & Fletcher-Watson, S 2016, 'Bilingualism in children with autism: Detrimental or beneficial?'

**Link:**

[Link to publication record in Edinburgh Research Explorer](#)

**Document Version:**

Publisher's PDF, also known as Version of record

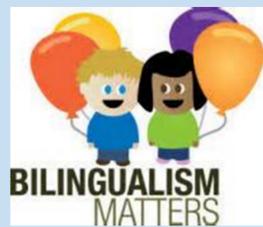
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# Bilingualism in children with autism: detrimental or beneficial?

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## Introduction

- Autism is associated with language and communication difficulties including delay in language onset in early childhood [1].
- The very limited body of existing literature suggests no harmful linguistic effects of bilingualism for children with autism [2].
- Despite this, parents can have concerns that bilingualism would amplify existing language delays [3].
- However, several areas have been identified as challenging for those with autism yet potentially enhanced amongst bilinguals, including skills such as theory of mind and executive functioning [4]. Bilingualism has also been associated with the facilitation of community integration, family coherence and well-being [5].
- Research into the implications of bilingualism for those with autism, however, is scarce, meaning families and practitioners have little information to assist them in their decision making.

## Objectives

- To examine whether there is evidence for an (increased) language delay as a consequence of bilingualism for children with autism.
- To explore how bilingual parents in the UK decide on what language practices to adopt for their child with ASD.

Table 1: Means (SDs) for scores on the CSBS, MSEL and MCDI for each group

	CSBS	MSEL: Visual Reception	MSEL: Fine Motor	MCDI: Phrases	MCDI: Words Understood	MCDI: Words Produced	MCDI: Total Gesture
Bilingual	26.67 (5.89)	33.40 (19.23)	34.44 (19.87)	19.73 (9.18)	239 (128.57)	156.40 (141.92)	38.13 (15.14)
Monolingual	25.80 (4.55)	31.17 (19.32)	27.27 (14.10)	19.87 (7.37)	237.27 (123.56)	172.40 (156.23)	35.60 (11.19)

All comparisons non-significant, including all subscales

## Method

In study one:

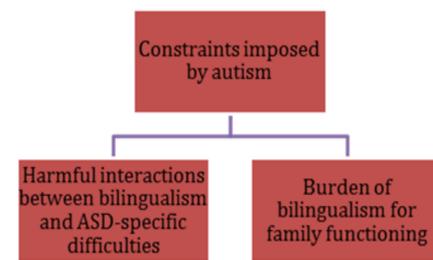
- Data from baseline assessments taken during a recent randomised controlled trial were re-analysed.
- We compared a sample of children (mean age = 4.2 years) with autism raised in bilingual households (n=15) with a monolingual group (n=15), matched on age, gender, ADOS scores and SES.
- Parent-reported language and communication skills (as measured by the CSBS, MSEL and MCDI) of the two groups were compared.

In study two:

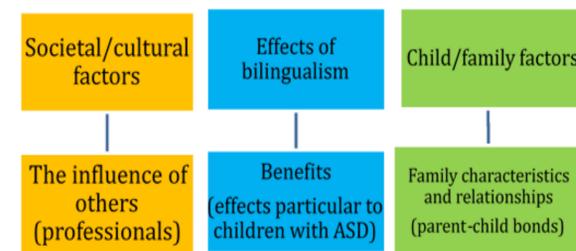
- Semi-structured interviews concerning the experience of raising a child in a bilingual household were conducted with bilingual parents with a child with autism (n=17), and a group of bilingual parents with a typically developing child (n=18).
- Groups were matched on a number of variables including: age and gender of the child, as well as parent's ethnicity, length of time in the UK and educational level. Parents spoke a wide variety of languages.

## Results

ASD-specific theme and subthemes:

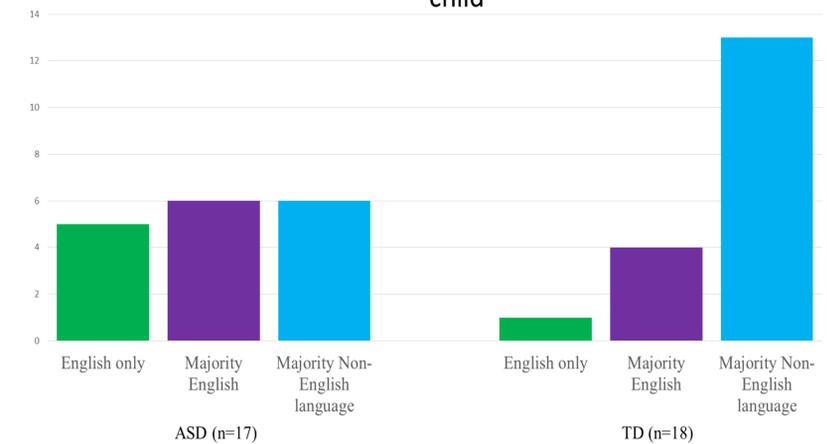


Shared subthemes expressed differently:



- For study one, T-tests and Mann-Whitney tests revealed no significant group differences in any aspect of the CSBS, MSEL or MCDI (scores shown in table 1).
- For study two, parents of children without autism were more likely to raise their child bilingually than parents of children with autism (see figure 1).
- Inductive, thematic analysis of the interview data revealed shared areas of overlap between parents of children with and without autism, including issues surrounding child characteristics, family dynamics, and preserving heritage.
- However some topics were specific to parents of children with autism. **First**, parents felt that a bilingual environment would hinder their child's linguistic development, causing confusion and exacerbating delays. This concern was most prominent for parents of children of lower language ability.
- Second**, parents felt bilingualism would be very challenging for the family. A lack of availability of resources for early years support in multiple languages contributed to this.
- Third**, some parents were advised by professionals to speak only one language and some were advised to speak both languages. Parents' views were sometimes in conflict with the advice given.
- Fourth**, parents identified a number of ways in which they felt bilingualism could provide social and cognitive benefits, particularly in flexible thinking and communication skills.
- Finally**, parents felt less linguistically restricted when interacting in their native language and felt that this language facilitated a strong emotional bond with their child.

Figure 1: Language parents use to communicate with their child



## Discussion

- Our findings recapitulate the limited existing literature on bilingualism and autism, demonstrating no evidence of a detrimental consequence of being raised in a bilingual household, while showing that parents continue to have concerns.
- It is essential to build an evidence base to enhance family decision-making in this area.
- Important directions for future research include: the exploration of a greater variety of aspects of linguistic development and employing innovative designs to address potential cognitive advantages of bilingualism for those with autism.
- Our findings point to the importance of considering not just cognitive consequences of bilingualism, but also family coherence and community integration, in future research in this field.

We would like to thank all the parents who kindly gave their time to participate in the study. This work was supported by a University of Edinburgh Challenge Investment Fund grant.

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