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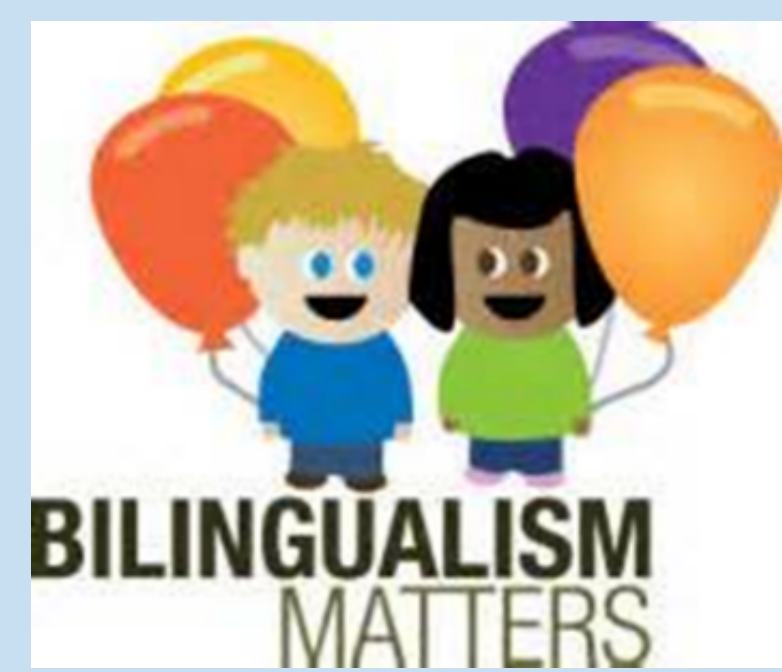
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# Bilingualism in children with autism: detrimental or beneficial?

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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
<b>Bilingual</b>	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)
<b>Monolingual</b>	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:

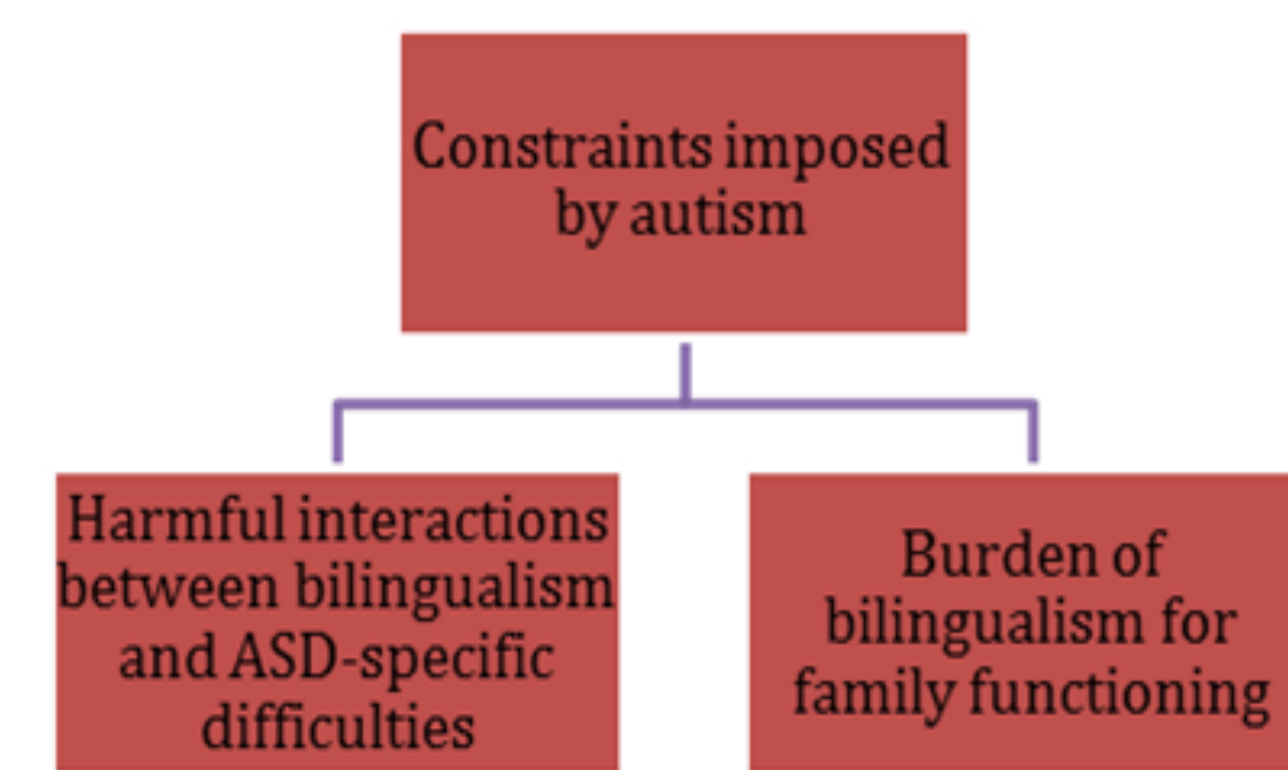
- Data from baseline assessments taken during a recent randomised controlled trial were re-analysed.
- We compared a sample of children (mean age = 4.2 years) with autism raised in bilingual households (n=15) with a monolingual group (n=15), matched on age, gender, ADOS scores and SES.
- Parent-reported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

In study two:

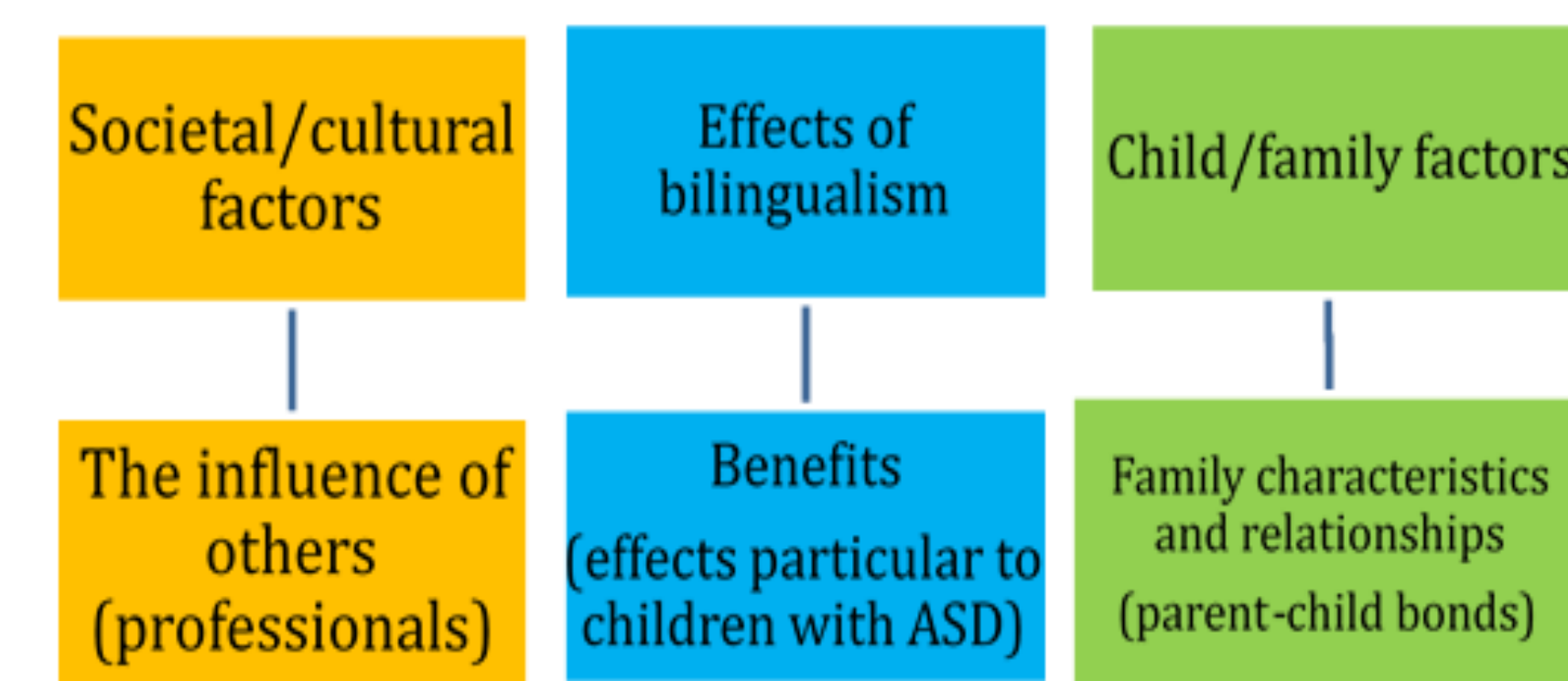
- Semi-structured interviews concerning the experience of raising a child in a bilingual household were conducted with bilingual parents with a child with autism (n=17), and a group of bilingual parents with a typically developing child (n=18).
- Groups were matched on a number of variables including: 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:

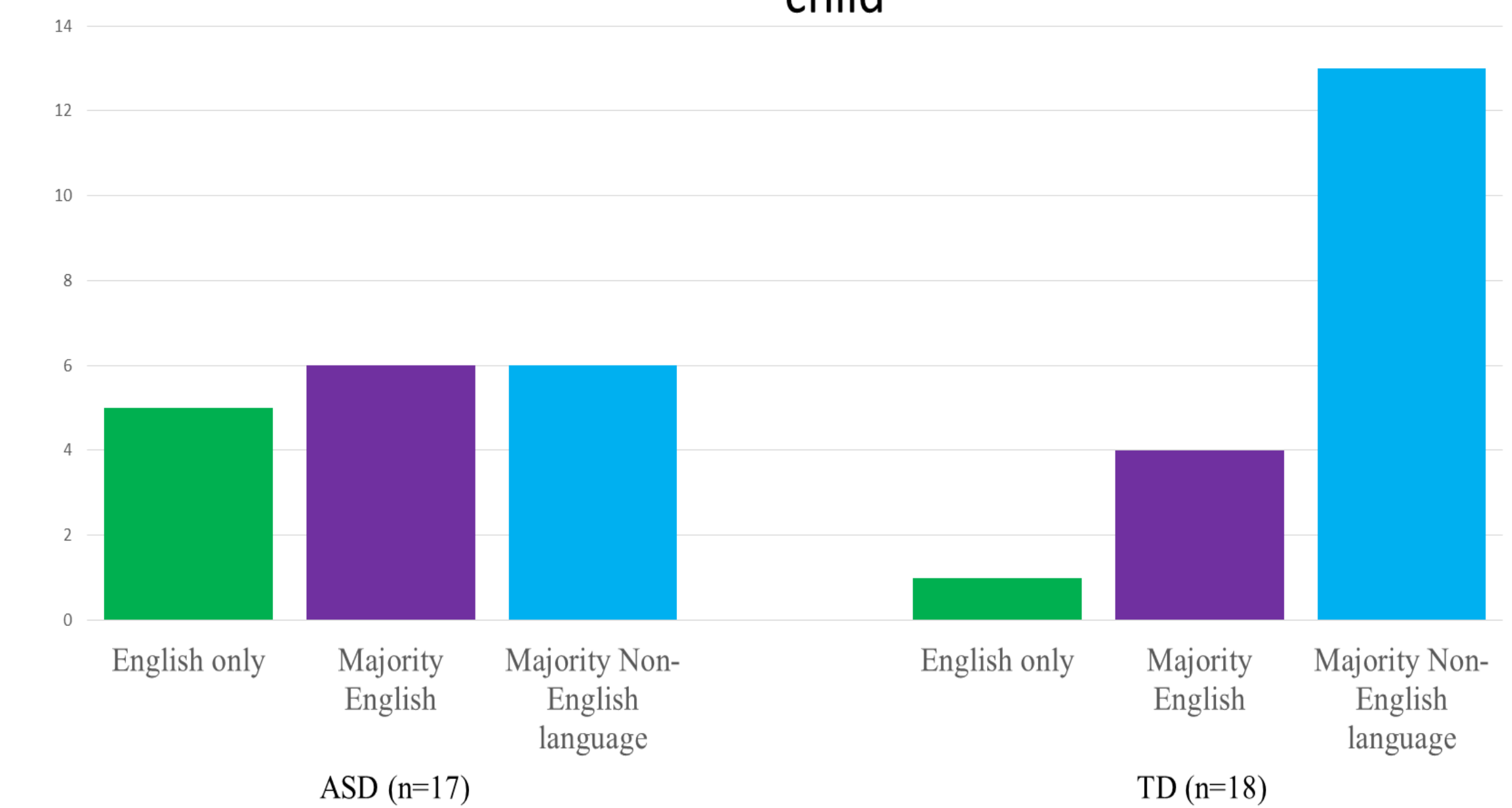


Shared subthemes expressed differently:



- 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.

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