**What the research tells us about autism and bilingualism**

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**Introduction**

This review of the literature considers a growing body of research evidence on autism and bilingualism that has identified how bilingual exposure for children and young people with autism can have a positive impact on their communication and language development. While much of the research on autism and bilingualism has originated in the US and Canada, the need to address this topic in UK schools has been emerging in recent years. According to the Special Educational Needs in England statistics (Department for Education, 2020) there has been a marked increase in the numbers of bilingual children on the autism spectrum in our classrooms in the last 5 years and over 20,000 children with autism who have a first language other than English. This has led to practitioners and parents wanting guidance about how best to support a child or young person who has a language impairment or delay associated with a diagnosis of autism and is exposed to more than one language at school and in their home environment or community.

Invariably the literature cited has used the term ‘bilingualism’ to refer to individuals who understand and/or use two or more languages to communicate. It also recognises how many children are being educated in English and have home environments that are multilingual. Therefore both terms are relevant within this discussion. Unless used in the literature, or when quoting, the term ‘Black Asian Minority Ethnic’ (BAME) is not used, as this categorisation does not adequately reflect the cultural variations and heritages of people who are 2nd and 3rd generation born in the UK or who have migrated from many different countries to live in the UK (Aspinall, 2002). Children and families will be referred to as ‘minority ethnic’ to highlight the fact that everyone has an ethnicity and the issues being referred to relate to minority groups in a majority White ethnic UK context. A common misconception is that children from minority ethnic backgrounds are referred to as using ‘English as an additional language’ (EAL). This terminology may be relevant for those children who are recent immigrants to the UK but for the majority of children, they are growing up as ‘simultaneous bilinguals’, having access to more than one language in the early stages of their communication and language development.

**Challenges and concerns about autism and bilingualism**

Autism is defined in the DSM-5 (American Psychiatric Association, 2013) and ICD-11 (World Health Organisation, 2017) as a neurological disorder that manifests in impaired social interaction and communication and restricted, repetitive patterns of behaviour, with or without an intellectual impairment or language impairment (autism.org.uk). Typically parents and health professionals may have concerns about autism when, along with the distinct differences in the child behaviour and social development, he or she does not develop speech, or shows signs of losing some of the age-appropriate words acquired (Park, 2014). With the development of both receptive and expressive language being central to a diagnosis of an autism spectrum disorder, parents, educators and clinicians have expressed concerns that learning more than one language in infancy can be too challenging. As a consequence, many families either choose, or have been encouraged to adopt a monolingual approach so that their child can access education through an English-based curriculum and learn to ‘fit in’ socially with their non-autistic peers (Howard, Gibson and Katsos, 2019).

Hambly and Fombonne’s (2012) research sought to gain more understanding of the impact of bilingualism on the language development in children with autism by comparing their social abilities and language levels in bilingual and monolingual home environments. Hambly and Frombonne hypothesized that social impairments could negatively affect language-learning in bilingual environments for children with autism, causing additional language delays. Their study included verbal and non-verbal children with autism aged 3 – 6 years who were living in either bilingual or monolingual environments. Standardised tests for social responsiveness, expressive and receptive language in autism and parent interviews about early language milestones were carried out. The results found that bilingually-exposed children with autism did not experience additional delays in language development compared to monolingually-exposed children. Children with autism showed capabilities of similar language achievements regardless of whether their environment was monolingual or bilingual. They concluded from their research that the foundational skills for language learning did not produce additional vulnerabilities for bilingually-exposed children compared to those who were monolingual. It was also acknowledged that the long term impact of bilingual exposure could not be determined due to changes in families’ life circumstances and the child’s increasing access to English-speaking education that could influence the languages spoken at home.

**The importance of bilingualism for autistic children and young people**

Similar case studies by Petersen, Marinova-Todd and Mirenda (2012) involving English-Chinese bilinguals and Valicenti-McDermott et al.’s (2012) research with English-Spanish children, also found no difference in language development between monolingually-exposed and bilingually-exposed children with autism. What these researchers found were distinct advantages for bilingual children compared to their monolingual peers that included having a larger vocabulary, a greater use of gestures to request objects and pretend play. The importance of bilingual exposure was also recognised in a study by Lang et al. (2011) who found that being in a bilingual home environment facilitated children’s cognitive development and language skills when using both languages. There was no delay in their ability to follow instructions in both languages which resulted in children exhibiting fewer behavioural difficulties. Current research suggests that there are potential benefits to children with autism being in bilingual environments rather than concerns, as initially expressed by clinicians and education professionals, that being bilingual can impede language development (Park, 2014).

Additionally, research has been undertaken to highlight the importance of bilingualism in families for maintaining and enhancing social relationships and communication with family members. Kremer-Sadlik (2005) points out how the integration of language and socialisation are crucial for understanding the values, beliefs and norms for everyday life and that to suggest children do not use their home language could have a negative effect on the child’s socialisation process. For many families, the benefits of living in a multilingual environment are seen as one of the key ways in which their autistic child learns about their cultural and religious heritage. Not only is this fundamental to an individual’s sense of identity it is also crucial for helping the child or young person to develop a sense of belonging to their home and school community.

**Parental perceptions and decisions about bilingualism**

The global movement of people to different countries, colonial influences and multilingual living within countries means that speaking two or more languages is the norm for nearly two thirds of the world’s population (Yu, 2013). It is therefore more typical that children will be bilingually exposed rather than monolingual and as such parents need to be supported in the decisions they make about the languages they want their child with autism to be exposed to. Several researchers (Jegatheesan, 2011; Hebert, 2014; Drysdale, van der Meer and Kagohara, 2015; Yu, 2016) have highlighted how misconceptions about bilingualism in the early stages of receiving a diagnosis of autism for their child, can complicate parents’ decisions about speaking more than one language to their child and the approaches and interventions they choose to support their child’s communication and language development. Howard, Gibson and Katsos’ (2020) UK-based study with eight parents, identified three key factors which influenced parents’ decisions whether to use a bilingual or monolingual approach in their home environment. Their findings were similar to previous research mentioned above in that all the parents valued bilingualism as an intrinsic part of the child’s cultural identity even if they had chosen a monolingual, English-only approach at home to support their child’s learning through English at school. Another factor affecting the choice the parents made was related to the advice they received from practitioners. Some of the parents had been advised to speak only English at home, even though they did not feel comfortable with this, while others were informed that speaking two languages would not delay their child’s language development and that they should continue to be bilingual in the home. The third factor which parents considered was the consequences of the choice they made whether to be bi- or monolingual in their home environment. Crucially, the parents acknowledged that they were open to having a different opinion about whether to remain or become monolingual or bilingual as their children grew older and their family circumstances changed.

In Jegatheesan’s (2011) study, parents referred to the importance of maintaining a multilingual environment for creating a sense of normalcy for their autistic child. The acquisition of multiple languages starting with the ‘home’ language, learning through English at school and being exposed to Arabic in the Koran, were seen as having a positive impact on their children’s cognitive development, socialisation and communication. The parents’ views about the benefits of living in a multilingual environment were the same regardless of whether their children were verbal or non-verbal and for some families they believed that their autistic child began speaking as a consequence of increased opportunities for communication, social adaptability and cognitive flexibility.

**School experiences of bilingual children on the autism spectrum**

As previously highlighted there has been a significant gap in research on autism and bilingualism in education and with the growing numbers of bilingual children on the autism spectrum in our schools, there is now an imperative for further discussion and research on this topic. McCray and García (2016) suggest that one of the reasons for this dearth in research is the way in which multilingualism, ethnicity and diversity have been underrepresented in professional dialogues within special education. Historically, the focus in special education has been predominantly on the identification, assessment and ‘treatment’ of a range complex developmental or disabling conditions and disorders

through a multi-agency framework (Tomlinson, 2017). Therapeutic, medical and behavioural interventions for pupils with autism have to a large extent dominated educational practices and as such addressing the sociocultural needs of pupils and their families has been largely non-existent (Grinker, 2008; Pellicano, Dinsmore and Charman, 2014).

Addressing the intersections of autism, ethnicity and bilingualism, Howard, Katsos and Gibson (2019) undertook one of the first studies in the UK to focus on the school experiences of autistic pupils from minority ethnic families about being bilingual. Their research included 11 pupils age 7 -14 who attended both primary and secondary mainstream schools in different regions in the UK. The pupils expressed both positive and negative views about being bilingual and tended to compartmentalise their use of English in school, even with their peers who spoke the same language (eg. Bengali), and at home with parents, friends and other family members interacted using their home language. The researchers did find that where there were more pupils in the school who spoke multiple languages, they were more comfortable with being bilingual and had more opportunities for social interaction whereas in settings where they were in the minority they preferred not to tell their peers that they spoke another language and felt less included in social interaction with peers. Some of the emotional challenges the pupils experienced in the classroom were similar to children who do not have autism and were learning through EAL. Anxiety brought about by uncertainty in what they were being asked to do and a dislike of being asked questions, was not always due to their autism, as was often assumed by their teachers. The findings from the research involving pupils sharing their experiences of school, went some way to identifying strategies that could support autistic pupils who are bilingual. These are considered in the closing section of this review of the literature, summarising some of the ways in which future developments in research and practice in autism and bilingualism are being considered.

**Implications for practitioners and future developments**

It is widely understood that pupils who identified as being bilingual or who are learning English as an additional language would not be categorised as having a special educational need but would be entitled to additional language support where it is deemed relevant to support their language learning needs in the classroom (Special Educational Needs and Disability Code of Practice, Department for Education, 2015). Research (Hart, 2009; Tan, Ware and Norwich, 2017) has shown that one of the main challenges for educators is being able to distinguish between a learning disability or language impairment and bilingualism and that pedagogically, training and support for teachers remains inadequate. Rosamond et al. (2003) suggest that to help establish whether pupils have special educational needs or English language development needs, it is recommended that in the initial stages of the process of identification of a learning need, the school should make a full assessment of the pupils’ language skills, including:

* the languages they speak
* the exposure they have had to each of these languages
* their current use of each of them
* their proficiency in them

Recognising that pupils with autism are a diverse group with language abilities across the spectrum, will be significant because they will have different starting points in terms of speaking, thinking, reading and writing in the languages they are exposed to. For special educators this is essential for informing the planning of pupils’ individual learning needs as well as any additional language support they need. For early language learners, this may also include whether they require picture symbols and culturally relevant picture symbols in their home language. In the same way that autism interventions require adaptation to the individual needs of the child, it is important to remember that children will be living in culturally and linguistically diverse communities and that no one approach to teaching language will be relevant for all children. Therefore, involving pupils, parents and family members in deciding on their language preferences will be fundamental to the progress pupils make across all subjects. As Wearmouth (2017) points out, educators should make use of the cultural and linguistic knowledge from family members about how different languages are used to enable them to adapt and make recommendations to support the value systems of the family.

In researching autism and bilingualism several authors (Cummins, 2009; West, 2010; Lindsay, 2011; Liasidou, 2013; Greenfield and Viesca, 2014; Howard et al., 2020) have concluded how future developments in this field of inclusive educational practice will require significant changes in policy and practice to meet the needs of pupils with diverse cultural and linguistic backgrounds. According to Arzubiaga et al. (2008) there is an imperative within special education for developing culturally responsive practice which requires a different way of thinking about the sociocultural needs of the pupil, to reduce the deficit-focused models of intervention which currently dominate. Not only should the classroom environment enable pupils to make meaningful connections between school and other social worlds, the curriculum needs to regard pupils’ cultural heritages and multilingual skills as a valid resource for learning and teaching. Whilst these concepts may be similar in approach to the ways autism-specific classrooms are designed to support autistic learners, it is perhaps in the curriculum and teaching approaches that there is a need to develop more cultural awareness in teachers’ attitudes towards autistic learners from diverse and multi-lingual backgrounds (Kandeh et al., 2020). This will require training for educators to overcome any uncertainty about teaching pupils with autism from culturally and linguistically diverse backgrounds.

To conclude, an examination of the research into multilingualism and autism has discussed how there are many positive benefits for autistic pupils when they are bilingual which is not yet fully recognised by clinicians and educators. Increased collaboration and discussion between professionals and families has also been highlighted and that more qualitative research is needed in order to further understand the lived experiences of autistic pupils who are multilingual and their families. In this way there is the potential for greater awareness of the ways in which pupils with autism who are bilingual, not only learn, but also how they locate themselves in their communities and the world in which they live, how they interpret their lives in multiple ways and create their sense of self and identity.

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