**Bilingualism and autism: the importance of studying language control as part of bilingual language development**

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With bilingualism becoming the norm rather than an exception (e.g., Grosjean, 2010), many children are growing up with multiple languages. This includes a large number of children with Autism Spectrum Disorder (ASD). As Prevost and Tuller (2021) discuss, more research is needed to understand bilingual language development in children with ASD. We entirely agree with their evaluation that more detailed and comprehensive language assessments are needed that go beyond vocabulary and also cover phonology, morphology, syntax, semantics, and pragmatics. These are aspects of language that are important to study in both monolinguals and bilinguals. However, there are additional aspects specifically related to bilingualism that are often neglected in this literature. While both monolinguals and bilinguals continuously have to select which words to use (“sofa” or “couch”?), bilinguals have the additional challenge of selecting in which language they should produce those words. In some cases, when communicating with another bilingual who speaks the same languages, language selection is relatively free and bilinguals can use the language they prefer. In other cases, however, the circumstances or interlocutors require use of one specific language. For example, in the presence of an English monolingual, a Spanish-English bilingual will typically need to use English. In particular when language selection is dictated by the environment, language control is needed to monitor the environment to select the appropriate target language, to ensure that words are selected in that language, to avoid intrusions from the other language, and to switch between languages when needed (Green, 1998; Green & Abutalebi, 2013). Research assessing how language abilities might differ between children with and without ASD (or between bilingual and monolingual children with ASD) have typically focused on lexical processes (e.g., vocabulary) that apply to both monolinguals and bilinguals. Far less attention, however, is paid to these bilingual language control mechanisms, even though they are crucial for efficient and successful communication. Here we focus on two reasons why it is especially relevant to study language control development in children with ASD: potential language selection difficulties and the potential relationship between bilingualism and executive functions (EF).

**Language selection**

Prevost and Tuller (2021) review anecdotal evidence of children who use a language at home that their parents do not speak, suggesting that children with ASD do not always use the contextually appropriate language. While it is of course unclear from this anecdotal evidence how widespread contextually inappropriate language use is in children with ASD, it does suggest that problems with language selection might exist. These potential difficulties might stem from different underlying problems. Delayed or diminished social or theory of mind abilities (e.g., Baron-Cohen, 2000) might be one explanation, with children following their own language preferences without considering the other person’s preference or language abilities. However, global language selection errors (i.e., choosing the “inappropriate” language for a prolonged period of time) and more temporary cross-language intrusions (e.g., accidentally using a Spanish word while speaking English) might also stem from diminished language control and/or inhibitory control (see e.g., Gollan, Sandoval, & Salmon, 2011, for evidence from older adults). The limited research assessing bilingual language control development in typically developing children (e.g., de Bruin, Samuel, & Duñabeitia, 2020) suggests that children have greater difficulty controlling their languages and show more cross-language intrusions than adults, in particular in environments that place greater demands on language control. We know hardly anything about this language control development in children with ASD, but given the association between ASD and EF difficulties (e.g., Demetriou et al., 2018), it is possible that this development is delayed or diminished. If that is the case, children with ASD might experience difficulties with context monitoring (i.e., detecting which language is most appropriate in a given environment), goal maintenance (i.e., keeping their language goals in mind), and language activation and suppression (to respectively select the target language and inhibit the non-target language). Any, or a combination, of these processes could result in selection difficulties such as using a language the conversation partner is not familiar with. Given the consequences these errors can have for successful communication, studying bilingual language control is crucial to better understand if and why bilingual children with ASD might face additional challenges when it comes to selecting a contextually appropriate language.

**Bilingualism and executive functions**

The importance of studying development of bilingual language control is also closely linked to the potential relationship between bilingualism and executive functions (EF). As Prevost and Tuller (2021) discuss, bilingualism *might* help to counteract some of the EF difficulties that are often observed in people with ASD. If there is (at least partial) overlap between language control and EF, the demands placed on bilinguals to monitor the environment, select a language, and avoid interference from the non-target language might positively modify the bilingual’s EF skills. Evidence (from typically developing children), however, is mixed (cf e.g., Gunnerud, Ten Braak, Reikerås, Donolato, & Melby-Lervåg, 2020, for a meta-analysis suggesting that EF benefits are absent or small at best in typically developing children). Crucially, the argument *why* bilingualism *might* affect EF is closely related to language control and the language environment a bilingual operates in (Adaptive Control Hypothesis, Green & Abutalebi, 2013). Bilinguals who spend more time in environments that place high demands on language control might use and develop that control more strongly and might show EF benefits. In contrast, children who grow up in an environment that allows free language choice and switching (e.g., Spanish-English speaking children whose parents and friends all speak Spanish and English) might not need to apply control as much and subsequently might not show EF benefits. To understand *if* bilingualism can help to diminish EF deficits and *which* bilinguals might benefit most, we therefore need to study individual differences between bilinguals differing in their language environments as well as the connection with their language control. This applies to typically developing children (and adults) but is perhaps even more important for children with ASD. Only children (or adults) who can successfully respond to the demands posed by the language environment might be able to benefit from EF advancements in relation to bilingualism. If (some) children with ASD are not able to successfully respond to the language environment and to apply the required (language) control, bilingualism might not have any consequences for their EF development either. Studying EF in bilingual children therefore cannot just be done by studying EF in isolation but has to consider EF development in relation to language control development and individual differences in language environment, especially in children with neurodevelopmental disorders.

**Bilingual language development includes language control**

Prevost and Tuller (2021) emphasise the need for, and challenge of, addressing diversity in bilingualism. They highlight, and we completely agree, that bilingualism should be treated as a continuum that considers the richness of ways in which bilinguals can differ from each other (including, but not limited to, age of onset, language exposure and use, language distance, and language status). When addressing this diversity, it is not sufficient to focus on variables that are typically studied in the “monolingual” literature. While we agree that it is crucial to move beyond vocabulary (and to also study e.g., phonology, syntax, and pragmatics), we also need to consider that bilinguals might face additional challenges (which can have consequences for e.g., their EF abilities) related to the use and knowledge of multiple languages. Studying the development of bilingual language control, in relation to the child’s language environment, is therefore a crucial part of studying bilingual language development in children with ASD.

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