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Does competent bilingualism entail advantages for the third language learning of immigrant students?

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ABSTRACT

This study examined the role of immigrant bilingualism in third language learning (L3 = English). It focused on the respective effects of students' competence in the minority language (L1 = Turkish or Russian) and language of instruction (L2 = German). We analyzed a sample of 8752 German 10th-grade students (N = 7964 monolinguals, N = 436 Turkish-German students, N = 352 Russian-German students) and drew on standardized tests in L1, L2, and L3. OLS-regression models showed L3 advantages for balanced bilinguals at a high level in both language groups compared to their average monolingual peers when third variables were controlled, while advantages in the L2 dominant bilinguals could only be observed in the Russian-German sample. Balanced bilinguals at a low level and L1 dominants attained lower L3 levels than monolinguals. However, comparisons with comparably high proficient monolinguals, as well as further analyses with the bilingual samples separately, revealed that only L2 competence – and not L1 competence – explained immigrant students' L3 proficiency. Our findings indicate that the advantages of immigrant bilinguals in L3 learning mainly depend on their competence in the language of instruction.

1. Introduction

According to current perspectives, bilingualism[2] is associated with additional benefits beyond the proficient command of two languages: bilingualism is associated with several cognitive and linguistic advantages, particularly in executive functions and metalinguistic awareness (for reviews see Adesope, Lavin, Thompson, & Ungerleider, 2010; Barac, Bialystok, Castro, & Sanchez, 2014; Bialystok, 2010, 2017; Bialystok, Craik, Green, & Gollan, 2009; but see also Duñabeitia & Carreiras, 2015; Lehtonen et al., 2018; Paap, Johnson, & Sawi, 2015 for a discussion regarding the reliability of the findings of the cognitive effects of bilingualism). However, to date, the potential benefits of bilingualism in school-related outcomes have received limited attention (see Kempert, Saalbach, & Hardy, 2011).

One exception is the growing number of investigations suggesting that bilingualism fosters third language (L3) learning. These studies clearly highlight the advantages of bilingual students attending bilingual school programs in L3 learning (e.g., Brohy, 2001; Cenoz & Valencia, 1994; Sanz, 2000; for overviews see Cenoz, 2003, 2013; Hirosh & Degani, 2018). However, whether this advantage also applies to another larger group of bilingual students, namely, immigrant students living in a majority language context, is unclear. These students grow up in societies in which the language of the majority prevails and without the official support of their home languages (see Maluch, Neumann, & Kempert, 2016). While several studies suggest that bilingualism has beneficial effects on third language learning in immigrant populations, other studies have failed to detect a general advantage in this group (see section 1.1).

We propose that the discrepancies among these studies are (also) due to the failure of these studies to consider the following key aspects of immigrant bilingualism: the variety of linguistic levels in L1 (minority language, typically the immigrants' first language, acquired in the family) and L2 (majority language and language of instruction, typically immigrants' second language) as well as the resulting profiles of bilingualism developed by immigrant students. While certain immigrants develop high levels of proficiency in both L1 and L2 *(balanced bilingualism at a high level)*, other immigrants have one dominant language (*L1 dominant* or *L2 dominant*) or have limited proficiency in both

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[2] Here, bilingualism refers to the command and use of two or more languages in everyday life.

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languages (*balanced bilingualism at a low level*). Although the levels of bilingual proficiency are generally assumed to be central to the advantages in L3 learning (Bialystok, Peets, & Moreno, 2014; Cenoz, 2003, 2013), studies investigating immigrant bilingualism often fail to consider this factor. As immigrant bilingualism is characterized by a strong heterogeneity in levels of bilingual competence (Cenoz, 2013), this failure is highly problematic. In this paper, we aim to clarify how different proficiency levels in L1 and L2 and the resulting profiles relate to the proficiency level in L3 in immigrant students living in a majority language context.

1.1. Bilingualism and third language learning

The central theoretical assumption underlying the hypothesis that bilingualism promotes L3 learning is that bilinguals possess an enhanced *metalinguistic awareness* that provides a resource for additional language learning (e.g., Thomas, 1988). Metalinguistic awareness refers to the ability to think abstractly about language and to focus on specific aspects of language (Jessner, 2006). According to Cenoz (2003, 2013), metalinguistic awareness and related concepts, such as language learning strategies, mediate the relationship between bilingualism and L3 learning (see Rauch, Naumann, & Jude, 2011 for an empirical investigation of this assumption). Although the findings are not unequivocal, considerable evidence supports that bilinguals outperform monolinguals in metalinguistic tasks (for a review, see Barac et al., 2014).

Different hypotheses regarding how bilingualism enhances metalinguistic awareness have been proposed (see Hirosh & Degani, 2018 for an overview). First, children who grow up with two languages are aware early that objects and concepts can be expressed using different words, which may promote the understanding of their arbitrary relationship (e.g., Bialystok & Miller, 1999). In addition, the use of two languages allows for comparative processes that facilitate the acquisition of explicit knowledge regarding the linguistic properties of languages and their differences (Cromdal, 1999). The ability to focus one's attention on the formal aspects of language promotes the understanding that languages are symbolic systems that can be manipulated and simultaneously enables the individual to reflect upon language and its features (Galambos & Goldin-Meadow, 1990). Finally, this process of turning implicit linguistic knowledge into explicit linguistic knowledge as a basis for observation and manipulation of languages requires the use of executive functions (cf. the *analyses and control framework;* Bialystok, 2001; Bialystok et al., 2014; Bialystok & Ryan, 1985), and bilinguals have been found to have advantages in precisely these cognitive domains (for reviews, see Adesope et al., 2010; Bialystok, 2017; Bialystok et al., 2009; Bialystok et al., 2014).

The abovementioned processes leading to advantages bilinguals are thought to be largely language-independent, i.e., not related to specific combinations of languages. However, to explain the possible advantages in L3 learning, the language-dependent effects must also be considered (e.g., Koda, 2007). Languages share linguistic properties, such as structure, lexicon and phonology, to very different degrees and thus differ in their *linguistic distance* (Crystal, 1987*)*. For example, languages from the same genealogical tree are more likely to have smaller linguistic distances than languages from different trees (e.g., Campbell, 1995; see section 2.4 for more details). During the third language learning process, the achievement gains may be partially affected by the linguistic distance between the original language and target language (cf. Edele & Stanat, 2016). Accordingly, in the case of languages with a large linguistic distance, the advantages of bilingualism should mainly rely on language-independent effects, whereas in the case of small linguistic distances, language-dependent effects may also occur.

Although levels of bilingual proficiency are widely considered important predictors of the advantages in executive functions and metalinguistic awareness (e.g., Carlson & Meltzoff, 2008; Cenoz, 2003), a comprehensive theoretical foundation for this assumption is lacking. Possible explanations of the association between the proficiency levels in L1/L2 and L3 outcomes include that higher proficiencies in both languages entail a broader linguistic repertoire and greater knowledge regarding language structures, more strategic knowledge regarding language learning and use, more controlled language shifting and switching occasions (and therefore enhanced executive functions) and a generally positive attitude toward language learning based on successful language learning experiences (cf. Maluch & Kempert, 2017).

Several studies have reported L3 advantages in bilingual students in bilingual school contexts that support L1 and L2 in instruction, such as dual immersion programs. Bilingual school contexts are often found in environments that have two official languages (e.g., French and English in Canada) or environments that have a majority and a minority language (e.g., Spanish and Basque in Basque Country, Spain). For instance, Spanish-Basque bilingual secondary school students in Basque Country outperformed Spanish monolingual students in oral and written measures of their L3 English. The advantages were robust after considering key third variables, such as the students' cognitive abilities, age, socioeconomic background, motivation to learn English and exposure to English (Cenoz & Valencia, 1994). Similar findings have been reported in Spanish-Catalan bilinguals in Catalonia (Sanz, 2000) and German-Rhaeto-Romanic bilinguals in Switzerland (Brohy, 2001) as follows: the bilingual students outperformed the students in the monolingual reference group in L3 tasks (see also Cenoz, 2003, 2013; Fleckenstein et al., 2017). These findings highlight the beneficial effects of bilingualism on L3 in students who live in a bilingual (school) setting and consequently possess comparably high linguistic levels and literacy skills in both languages. Accordingly, Cenoz (2003, 2013; see also Gallardo, 2007) emphasizes that the levels of bilingual proficiency (e.g., balanced bilingualism at comparably high levels) are important for students to benefit from the advantages in L3 learning.

In contrast, studies investigating immigrant students residing in majority language contexts, such as Germany, have produced less conclusive findings. These students are in a very different situation than bilingual students in bilingual contexts for the following reasons: the language these students acquire from their families (L1) typically differs from the majority language (L2) and does not receive official support, and the exclusive language of school instruction is L2 (in a foreign language classroom alongside L3). In addition, most immigrant students acquire L1 exclusively from their family context and do not receive formal instruction in this language; thus, they often possess only oral skills in their L1. Bilingual immigrant students develop very heterogeneous linguistic profiles depending on the socioeconomic and cultural background of their families, the patterns of language use in and outside of their family, and their immigrant generation and age at migration (Maluch & Kempert, 2017; Strobel & Seuring, 2016).

Positive evidence that bilingual immigrant students may have an advantage in L3 learning is provided in the DESI study (*Assessment of Student Achievements in German and English as a Foreign Language*). The DESI study examined a representative sample of 11,000 ninth-graders in Germany and compared the foreign language learning achievement of monolingual German-speaking students to that of students who acquired more than one language at home (multilinguals) and students who acquired a language other than German at home (non-German speakers). After controlling for cognitive abilities, socio-economic status (SES), gender and school track, the multilinguals and non-German speakers exhibited higher foreign language competencies than the monolingual German students (Hesse, Göbel, & Hartig, 2008).

In contrast, other studies did not identify overall L3 advantages in bilingual immigrant students. Several investigations failed to reveal any group differences between bilingual immigrant students and their monolingual national peers (e.g., Sanders & Meijers, 1995; van Gelderen et al., 2003). Other studies indicate that the L3 advantages are restricted to specific groups of bilingual immigrant students. First, growing evidence suggests that the advantages in L3 acquisition may not generalize to all language groups. Maluch, Kempert, Neumann, and