# A descriptive bibliographical research about the development of metalinguistic awareness and the occurrence of linguistic transfer processes in bi/multilingual literacy and reading

Pesquisa bibliográfica descritiva sobre o desenvolvimento da consciência metalinguística e a ocorrência de processos de transferência linguística na alfabetização e leitura bi/multilíngue

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Abstract: This article presents a descriptive bibliographical research about literacy and reading development of bi/multilingual children with a focus on the development of metalinguistic awareness as well as the occurrence of linguistic transfer processes from L1 to L2 and vice-versa in bilinguals. The study follows a view of bilingualism as a dynamic phenomenon that is influenced by contextual, social, cultural, linguistic, and cognitive factors (GROSJEAN, 1989; HAMERS; BLANC, 2004). The research method adopted for data collection was adapted from Paré and Kitsiou's (2017) framework for descriptive literature reviews. The selection of materials was restricted to research on Roman alphabetical languages, in the following language pairs: English-Portuguese, Portuguese-English, English-Spanish, and Spanish-English. Results indicate that bilingual literacy practices foster better metalinguistic awareness in children and confirm the occurrence of transfers of linguistic, as well as reading and writing abilities, across L1 and L2. Also, findings suggest a translanguage approach to bi/multilingual literacy in a way that bi/multilingual students' linguistic, cognitive, social, and cultural diversity are recognized as valid resources to bi/multilingual literacy.

**Keywords**: bi/multilingual literacy; metalinguistic awareness; transfer processes.

Resumo: Este artigo apresenta uma pesquisa bibliográfica descritiva sobre o desenvolvimento da alfabetização, do letramento e da leitura de crianças bilíngues com foco no desenvolvimento da consciência metalinguística, bem como na ocorrência de processos de transferência linguística de L1 para L2 e vice-versa em bilíngues. O estudo segue uma visão do bilinguismo como um fenômeno dinâmico, que é influenciado por fatores contextuais, sociais, culturais, linguísticos e cognitivos (GROSJEAN, 1989; HAMERS; BLANC, 2004). O método de pesquisa adotado para coleta de dados foi adaptado do referencial de Paré e Kitsiou (2017) para revisões descritivas da literatura. A seleção dos materiais restringiu-se à pesquisa em línguas alfabéticas romanas, nos seguintes pares linguísticos: inglês-português, português-inglês, inglês-espanhol, espanhol-inglês. Os resultados indicam que as práticas de letramento

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bilíngue promovem uma melhor consciência metalinguística nas crianças e confirmam a ocorrência de transferências de habilidades linguísticas, bem como de leitura e escrita, entre L1 e L2. Além disso, os resultados sugerem uma abordagem translíngue para a alfabetização e o letramento bi/multilíngue de forma que a diversidade linguística, cognitiva, social e cultural dos alunos bilíngues seja reconhecida como recursos válidos para a alfabetização e o letramento bi/multilíngue.

Palavras-chave: alfabetização e letramento bi/multilíngue; consciência metalinguística; processos de transferência.

# Introduction

Defining bilingualism is a complex task, as the definitions of the construct differ according to several factors, including the levels of proficiency in the two languages of the speakers, the frequency of use of those languages, as well as the contexts and situations in which the languages are used and interact. Initially, a classical definition of bilingualism was proposed by Bloomfield (1935). Following a structuralist view of language, the scholar defined a bilingual person as an individual with perfect command of two languages, the mother tongue, and a second language (L2)<sup>3</sup>. However, this definition is not adequate for contemporaneity (BIALYSTOK, 2001; HAMERS; BLANC, 2004; GROSJEAN, 1989; MEGALE, 2005; among many others). Megale (2005), for example, considers bilingualism as a phenomenon involving speakers who have at least one of the four linguistic skills and addresses the concept based on the multidimensional model of bilingualism and bilinguality formulated by Hamers and Blanc (2004). In line with Grosjean (1989), Hamers and Blanc (2004) discuss bilingualism as a dynamic phenomenon that occurs in several contexts and situations related to languages in contact in a comprehensive publication. The authors focus on bilingualism as linguistic behavior and propose the concept of bilinguality referring to the manifestation of the phenomenon of bilingualism at the individual level emphasizing the variety of psychological characteristics of bilingual individuals depending on the factors that influence their experience. Hence the authors define bilinguality as "the psychological state of an individual who has access to more than one linguistic code as a means of social communication" (HAMERS; BLANC 2004, p. 25). According to the multidimensional view, bilinguality varies according to cognitive, situational, and contextual aspects (HAMERS; BLANC 2004), as represented in Table 1 below:

<sup>&</sup>lt;sup>3</sup>L2 is used as an *umbrella term* because of the frequency of use of the term in the literature of language acquisition and bilingualism. For a more detailed discussion, I suggest the reader could refer to Jordão (2014).

Table 1 –Summary table of psychological dimensions of bilinguality

Dimensions		Type of Bilinguality	Comments
1.	relative	balanced bilinguality	L1=L2
	competence	dominant bilinguality	L1>L2orL1 <l2< td=""></l2<>
2.	cognitive	compound bilinguality	1representation for L1 and L2 conceptual
	organization		units
		coordinate bilinguality	2representations for L1 and L2 conceptual
			units
3.	age of	childhood bilinguality:	L2 acquired before age of 10/11
	acquisition	simultaneous	L1eL2acquired at the same time
		consecutive	L2acquired after L1
		adolescent bilinguality	L2acquiredbetween ages of11and17
		adult bilinguality	L2acquiredafter age of17
4.	presence of L2	endogenous bilinguality	presenceofL2commnunity
	community in	exogenous bilinguality	absence of L2community
	the environment		
5.	relative status of	additive bilinguality	L1 and L2 are equally valorized -
	L1 and L2		cognitive advantage
		subtractive bilinguality	L1 is devalorized at the expense of L2 -
			cognitive disadvantage
6.	group	bicultural bilinguality	double group membership and bicultural
	membership and		identity
	cultural	L1 monocultural	L1group membership and culturalidentity
	identification	bilinguality	
		L2 acculturated	L2 group membership and culturalidentity
		bilinguality	
		deculturalturated	ambiguous group membership with no
		bilinguality	clear cultural identification

Source: Adapted from Hamers and Blanc (2004, p. 26) and Megale (2005, p. 6).

Table 1 represents a multidimensional view of the concept of bilingualism and bilinguality described in six dimensions, namely, relative competence, cognitive organization, age of acquisition, presence of L2, the status of languages, and cultural identity. These dimensions are related to factors that lead to different manifestations of the bilingual experience, including bi/multilingual literacy practices. Having said that, this paper focuses on bilingual literacy as an aspect of the bi/multilingual experience focusing on the development of metalinguistic awareness in children who have experienced bilingual literacy practices.

Additionally, this reviewaddresses the occurrence of linguistic transfer processes from L1 to L2 and vice-versa in literacy and reading development. In order to carry out the study, the research method adopted is adapted from descriptive reviews discussed by Paré and Kitsiou (2017). The objective of the review was to contribute to epistemology in the field by gathering and organizing in a descriptive manner the knowledge that has been constructed on these specific aspects of bi/multilingual literacies concerning Roman alphabetical languages. The method consists of identifying relevant research themes and objectives, searching for materials, screening studies according to inclusion criteria, as well asanalyzing and summarizing content, and reporting findings.

First of all, basic research was performed to have an overview of the area of bilingualism and literacy, leading to the identification of the previously mentioned themes of metalinguistic awareness and transfer processes from L1 to L2 abilities during literacy and reading development. In addition to primary sources, secondary sources were included in this bibliographical review due to the relevance of their content regarding metalinguistic awareness and skills transfer in bilinguals. Results from the basic research comprehend a summary of multidimensional model of bilingualism and bilinguality (HAMERS; BLANC, 2004), as well as a review of studies about metalinguistic awareness, linguistic and transfer processes from L1 to L2 and vice-versacarried out by Blos (2009). After that, the adapted method for descriptive literature reviews was applied starting with the following research questions to guide the review:Do bilingual experiences lead to improvements in metalinguistic awareness in children? What does the literature say about the transfer of literacy and reading skills between L1 and L2 and vice-versa in students exposed to bilingual experiences?

The selection of bibliographical material for the review was performed by means of Periodicals searches Capes Portal (https://www-periodicos-capes-govtwo on br.ezl.periodicos.capes.gov.br/), performed in October and November, 2022, under the headings of Social Sciences, Bilingualism, English, Literacy, Second Language Learning, Psychology, and Bilingual Education. The period of selection was from 2019 to 2022 in order to locate recent articles that would complement the materials from the basic search. The first search used the following terms: bilingual literacy, metalinguistic awareness. From that search, 25 articles were found, 23 of them were written in English, one article was written in Portuguese and another one was written in Spanish. During this selection phase, inclusion criteria were applied considering full-text availability, focus on metalinguistic awareness, and studies involving Portuguese, Spanish, Italian, French and/or English. The restriction to those

languages is based on previous studies that have suggested the influence of alphabetical systems in bilingual literacy processes and outcomes (BIALYSTOK; MAJUMDER; MARTIN, 2003). Upon applying relevance criteria, 4 articles dealing with metalinguistic awareness and bilingualism were included.

The second search was based on the following search string: bilingual literacy transfer processes, considering the period from 2019 to 2022. Out of this search, 8 articles and a thesis were found, however, after applying the aforementioned inclusion criteria, no articles were selected. As a result, a new search on Capes Periodicals Portal (https://www-periodicoscapes-gov-br.ezl.periodicos.capes.gov.br/) was conducted expanding the period of search from 2010 to 2022. This new search yielded 38 articles, subsequently, inclusion criteria were applied and 4 studies were selected. As for the basic research selection and the systematic selection on the aforementioned database, basic research has included one book (HAMERS; BLANC, 2004) and 8 articles (BIALYSTOK, 1986; 2001; 2002; 2007; BIALYSTOK, MAJUMDER; MARTIN, 2003; BLOS, 2009; BRENTANO; FINGER, 2020), whereas the systematic selection yielded 4 articles focused on metalinguistic awareness and bilingualism (GALLOWAYet al., 2020; GARCÍA; KLEIFGEN, 2019; PROCTOR et al., 2019; WACKERLE-HOLLMANet al., 2019) and 4 articles on L1 and L2 transfer processes in bilingual literacy (CHUNG; CHEN; DEACON, 2017; GARCÍA; GODINA, 2017; SUN-ALPERIN; WANG, 2011; SWANSON; OROSCO; LUSSIER, 2012). Altogether, 16 articles and a book compose the present descriptive bibliographical review.

Having organized the selection of sources, the main issues of concern for this article are addressed. First, the relationship between the bilingual experience and metalinguistic analysis is discussed, then the transfer of linguistic and reading skills between L1 and L2 (and vice-versa) in bilinguals is reviewed. As previously mentioned, the following research questions are proposed: Do bilingual experiences lead to improvements in metalinguistic awareness in students? What does the literature say about the transfer of literacy and reading skills between L1 and L2 and vice-versa in students exposed to bilingual experiences? The questions are discussed in light of the literature selected.

# Bilingual experience and metalinguistic analysis- Do bilingual experiences lead to improvements in metalinguistic awareness in students?

With regard to bilingual competence levels, Bialystok and Majumder (1998) investigated bilingual language processing in children taking into account the language awareness and bilingual competence levels of these children. Children were grouped into

monolingual, partially bilingual, and fully bilingual. The results of their experimental studies demonstrate that higher levels of bilingualism are associated with higher levels of metalinguistic awareness. The authors have examined bilingualism as well as linguistic skills and cognitive abilities identified in bilingual children, namely, problem-solving skills, language acquisition, metalinguistic ability, and literacy. In summary, contrary to previous assumptions, findings have indicated a beneficial influence of bilingualism on children's cognition, as bilinguals are led to acquire and manipulate two language systems in their experience, which, in turn, demand more control of attention compared to monolingual children. Other studies confirm that bilingual experience exerts an influence on metalinguistic abilities (BLOS, 2009; BIALYSTOK, 2007). According to Blos (2009), the experience of dealing with two distinct linguistic systems apparently leads to an improvement of metalinguistic awareness at phonological, morphological, and syntactic levels. Regarding phonological awareness, Blos (2009) has mentioned the reduced number of studies involving this variable in bilingual studies and pointed out that the possible beneficial influence of bilingualism tended to fade as children become literate. As for morphologicalawareness, Blos (2009) refers to a comparative study with monolingual and bilingual children learning to read (BIALYSTOK, 1986). The study tasks consisted of reading and counting words in meaningful organized sentences, as well as reading and counting words in sentences in which the words were scrambled. In the condition of sentences with scrambled words, there was no difference in the result between groups, however, in the condition of organized and meaningful sentences, bilingual children had better results, which was interpreted by Bialystok (1986) as a better ability to separate meaning and form and to control/inhibit distractions from the general meaning of sentences by bilinguals. Blos (2009) reviewed other studies by Bialystok and her group to discuss syntactic awareness (BIALYSTOK; MAJUMDER, 1998; BIALYSTOK; RYAN, 1985 as cited inBLOS, 2009). Comparative studies between bilinguals and monolinguals in grammaticality judgment tasks have been examined, including studies involving grammaticality judgment with distractors and studies without distractors. Similar to studies on morphological awareness, research with the judgment of grammaticality did not show advantages for bilinguals when there were no distractors, but there was a bilingual advantage in studies involving distractors (GALAMBOS; GOLDIN-MEADOW, 1990, as cited in BLOS, 2009).

More recent studies contribute to the understanding of bilingualism and multilingualism and metalinguistic awareness. For instance, Proctor *et al.* (2019) implemented an intervention study with 239 bilinguals focusing on reading and academic

vocabulary acquisition that took place in eight schools in the U.S. The participants were children in grades 4 and 5 of schooling who spoke Portuguese as L1 and English as L2 or Spanish as L1 and English as L2. Their research was based on a critical view of bilingualism that acknowledges the contributions of students' L1 knowledge, abilities, and experiences to their development. The study involved vocabulary, syntactic and morphological dimensions of language, as well as oral and reading abilities in bilingual situations using an instrument denominated "CLAVES (an acronym for comprehension, linguistic awareness, and vocabulary in English and Spanish)" (PROCTORet al., 2019, p. 2) adapted for speakers of Spanish or Portuguese as the L1. Study participants were divided into an intervention group with 119 students and a control group with 120 children. Participants' demographic information showed that the majority of the students were bilinguals, namely, Spanish-English or Portuguese-English from low-income families. Their levels of proficiency in English varied from developing to reaching proficiency. The intervention program was designed as follows: cycles 1 and 2 (text-based language and comprehension phase with comprehension, vocabulary, morphology, syntax tasks, and discussions); cycle 3 (writing phase). There was an effort to make sure that materials selected for the study represented students' identities in terms of ethnicity, bilinguality, and life experiences, particularly, immigration. Strategies for activation of prior knowledge, use of cognates, translation to support vocabulary acquisition, semantic maps to develop academic language, summarizing, and inferencing strategies for reading comprehension were applied in cycles 1 and 2. Compare and contrast ideas practices were used in small group discussions in those cycles. In terms of morphology, affixation practices covering L1 and L2 were applied. As for syntax, pronominal reference, verb tense identification, and sentence building were carried out in cycles 1 and 2. In cycle 3, the writing phase consisted of planning, writing, revising, and publishing recycling themes and linguistic content approached in the previous cycles. After intervention, tests tackling reading comprehension, vocabulary, syntax, and academic language were administered. Overall results indicated that the interventions corroborate previous studies' considerations about literacy instruction suggesting that after basic literacy is achieved, the focus of instruction could shift from phonemic, word, and sentence levels to textual levels with texts characterized by more complex language.

In a similar vein, Galloway *et al.* (2020) defend that DLI "Dual Language Immersion (DLI)" (GALLOWAY*et al.*, 2020, p. 1) may lead to improvements in reading performance. The authors stress the beneficial impact of the development of academic language via meaningful, contextualized practices on reading comprehension. Therefore, they proposed a

study focused on the influence of Spanish and English cross-linguistic relations and academic language skills on reading comprehension in English. 165 bilingual students in grades 4 and 5 participated in the research; they were enrolled in schools in the US that offered DLI programs. Demographic data showed that most study participants were Latin and received free school meals. In terms of language use, the researchers decided not to define whether English and Spanish were participants' L1 or L2 due to contextual characteristics because the frequency of use of Spanish and English at home, in the L1 community, and at school varied, but generally speaking, children seemed to be using both languages frequently and developing competence in them. Hence, the students were considered Spanish and English bilinguals. Participants' academic language skills were tested in Spanish and English using "core academic language skills (CALS)" (Galloway et al., 2020, p. 1). Their research drew on two hypotheses discussed by Cummins, the academic languages hypothesis, which posits that bilinguals' academic languages abilities in their two languages benefit their literacy development, and the interdependence hypothesis, according to which, due to a "common underlying proficiency language" (CUMMINS, 2016, p. 940), skills transfer across languages provided that there is sufficient exposure to L1 and L2 (CUMMINS, 2016; GALLOWAYet al., 2020). It is worth mentioning that Spanish and English are alphabetic languages with Roman script and the transfer of word reading skills between Spanish and English has been well-established in the literature. However, research on the transfer of vocabulary knowledge across these two languages has not produced clear-cut results. Study tests comprehended CALS-Spanish, CALS-English, word reading in Spanish, word reading in English, and a reading comprehension test in English. Galloway et al. (2020) emphasize that DLI approaches can enhance metalinguistic development, as students in their research had more opportunities to notice similarities between Spanish and English at structural and pragmatic levels. Hence those researchers have foreseen that metalinguistic knowledge could favor reading comprehension in English based on word reading skills or on CALs. Results for the first hypothesis showed a positive correlation between CALS in English and CALS in Spanish among the study participants. The second hypothesis predicted that CALS in Spanish benefited bilinguals' reading comprehension in English. Overall results confirmed the second hypothesis suggesting the transfer of language skills in Spanish to reading comprehension in English. Metalinguistic abilities identified in the study included use of cognates, morphology rules, ability to process complex sentences, and use of text structure. The study suggests that metalinguistic abilities examined also encompass language communicative functions in the sense that students may develop an awareness of language functions in bilingual contexts and

situations. Those findings corroborate the contributions of academic language instruction to bilinguals and demonstrate that translinguistic practices enable the transfer of skills from one language to the other, hence giving bilinguals a chance to use their home language knowledge and abilities.

In addition to intervention studies, this review includes a study about the development of an instrument that measures phonological awareness in bilingual children at preschool age in the US who are speakers of the Spanish-English language pair identified as dual language learners (DLLs), (WACKERLE-HOLLMANet al., 2019). The initiative was motivated by the diversity of the study participants' cultural backgrounds and linguistic experiences, which raised the need for specific measuring instruments when dealing with bilingual children's literacy development. The authors emphasize phonological awareness as a relevant factor in bilingual early literacy and present "Spanish Growth and Development Indicators (S-IGDIs) Primeros Sonidos" (WACKERLE-HOLLMANet al., 2019, p. 34) as a possible instrument to measure phonological awareness in Spanish bilinguals. Indicators used to measure phonological awareness in Spanish and English were tested in their study taking into account early assessments of children's levels of pre-literacy skills in Spanish and English. 970 children aged 4 to 5 years of age participated in the study that aimed at identifying Spanish-English bilingual children's phonological skills using S-IGDIs – "Primeros Sonidos/First Sounds (PF/FS)" (WACKERLE-HOLLMANet al., 2019, p. 37) and assessing S-IGDIs association with a standardized instrument that measured proficiency and literacy in Spanish, the "Test of Phonological Awareness in Spanish (TPAS) (WACKERLE-HOLLMANet al., 2019, p. 42). The study tasks comprehended identification of the first sounds (phonemes or syllables) in words regardless of their meaning. Results based on statistical analyses indicated that the instrument designed for the study, PF/FS was reliable and produced valid data for research about early literacy in Spanish, particularly, regarding phonological awareness subskills of phoneme and syllable identification. The authors stressed the fact that PS/FS was not created by translating a similar instrument in English, instead, it is based on specific linguistic features of Spanish. Moreover, overall results demonstrated that phoneme and syllable identification are essential phonological awareness subskills for literacy development in Spanish.

To conclude the discussion of the first question proposed in this review, the present authors rely on García and Kleifgen (2019) for an overview of the concept of translanguaging according to its theoretical basis, as well as an account of possible related practices. The authors view the concept as a sociolinguistic theory in line with Bakhtin's (1981) dialogical

view of language, considering the historical development of the concept and its application to bilingual or multilingual pedagogical practices. In this sense, literacy, as well as bi/multiliteracies, are seen as social practices, in accordance with a sociolinguistic perspective of language. Hence it is important to recognize translanguaging political implications, particularly when it comes to Anglo-American educational contexts in which English, the L1, is the norm. In multilingual contexts, this means that literacy in English is the standard to be acquired, and the linguistic development in other languages children may use and experience in their families and communities may be disregarded. Translanguaging theory transgresses that view by acknowledging the importance of the languages acquired by bi/multilingual students and offers a more egalitarian view of literacy that seems to correspond to the contemporary needs of multilingual societies.

In terms of pedagogical experiences, García and Klefgen (2019) report that teachers who have implemented translingual practices considered them beneficial to students' bilingual development in terms of dual language acquisition and strengthening of students' identities. Furthermore, the authors stress that bi/multiliteracies are not simply literacy in L1 and in L2 as separate processes, rather than that, they are literacy practices in which bi/multilinguals have the opportunity to use their diverse language repertoires in a less restrictive manner than previous L1/L2 pedagogies could suggest. Furthermore, translanguaging follows the logic that languages are not unchangeable, fixed, phenomena that belong to a country or nation. Therefore, the choice of the term is explained as follows:

We prefer the term *translanguaging* because, as Flores (2014) noted, translanguaging is a political act focused on reinterpreting language as a decolonizing process and liberating the language practices of bilingual minoritized populations. We also prefer the term translanguaging because it centers the attention on bilingual minoritized people and their actions, especially in schools. (GARCÍA; KLEIFGEN, 2019, p. 4)

Actually, the concept of translanguaging represents a shift in theorizations about bilingualism, from Bloomfield's (1935) previously mentioned structuralist view of a bilingual as someone with perfect command of two languages to a more inclusive view of a phenomenon in the realm of human interactions that can occur in a diverse manner (GROSJEAN, 1989; HAMERS; BLANC, 2004; GARCIA; KLEIFGEN, 2019). In the previously mentioned quote, the political dimension of the concept is highlighted in the sense that it values language manifestations of minorities. Above all, translanguaging practices may

enable bi/multilingual speakers to explore their linguistic repertoires in their full potential to make meanings.

García and Klefgen's (2019) review of the application of translanguaging theorizations to bi/multilingual practices in terms of reading comprehension, writing, students' selfconfidence in their literacy progress, and developing metalinguistic awareness in a critical manner. In relation to reading comprehension, studies reviewed indicated the use of oral strategies in form of discussions at pre-reading, while reading, and at post-reading phases of reading comprehension. Additionally, strategies observed were the identification of texts' main ideas using annotations in more than one language, including non-verbal language such as drawings to facilitate the expression of ideas via translanguaging practices. Some studies examined proposed reading bilingual books for children in kindergarten followed by postreading translanguaging practices, while, at high school levels, bilingual versions of literary texts were explored as practices that enabled students to compare the expression of ideas and nuances of meanings across languages (GARCÍA; KLEIFGEN, 2019). The writing practices reported were based on the premise that writing had to be connected to students' realities. Also, García and Kleifgen (2019) discussed cognitive aspects related to writing claiming that fundamental cognitive abilities such as creating ideas, reasoning, imagining and organizing thoughts underlie writing. In fact, attention is drawn to the fact that those underlying abilities may be more important than linguistic abilities (GARCÍA; KLEIFGEN, 2019). Regarding the aspect of bi/multilingual students' trusting their own capacities as literate individuals, the authors propose the concept of confianza (GARCÍA; KLEIFGEN, 2019, p. 12) and stress that often, bi/multilinguals minorities have to face discrimination because opportunities received in school contexts may not be equal to all social and ethnic groups present in school contexts. Consequently, the authors suggest that translanguaging practices may mitigate difficulties in students gaining trust in their own literacy achievements. As for the aspect of developing metalinguistic awareness in a critical manner, metalinguistic awareness practices examined comprehended lexical and syntactical aspects, as well as the use of cognates and discourse structure strategies across languages. Altogether, García and Kleifgen (2019) concluded that the studies reviewed did not suggest specific translanguaging strategies for literacy because the theory proposes a flexible approach based on how linguistic needs are manifested in different contexts or situations.

Transfer of linguistic and reading skills between L1 and L2 (and vice-versa) in bilinguals - What does the literature say about the transfer of literacy and reading skills between L1 and L2 and vice-versa in students exposed to bilingual experiences?

As it can be seen, the second question guiding this review intends to elucidate the occurrence of transfer of L1 and L2 reading skills in students exposed to bi/multilingual contexts. First of all, Bialystok, Majumder, and Martin (2003) confirm that the transfer of these skills between L1 and L2 can occur depending on factors such as the types of linguistic systems involved, children's proficiency levels in L2, and mode of acquisition of writing in L2. This assertion stems from a study carried out under a psycholinguistic perspective involving four groups of children who were learning to read. Three groups were composed of bilinguals in Spanish-English, Hebrew-English, and Chinese-English language pairs, and the fourth group consisted of monolinguals. All children in the bilingual groups used two languages in their routines and were learning to read in their L1 and L2. Study tasks consisted of phonological awareness and decoding tasks and were performed by all children. The research results suggested an improvement in the reading processes of bilingual children in relation to the monolingual group. Regarding the transfer of literacy skills, this was identified only in the group involving two alphabetic systems, which demonstrates the relevance of this factor in the process of transferring reading and writing skills between L1 and L2.

Bialystok (2007) reviews the theme of literacy acquisition in bilinguals under a psycholinguistic view of language. The author discusses the impact of bilingualism on children's cognitive and intellectual developmentand its interactions with bilingual literacy. She concludes that learning to read in itself leads to the development of reading and linguistic skills in children, as a result, these skills are a preparation for skill transfer across L1 and L2 or more languages. However, Bialystok (2007) adverts that transfer processes are not necessarily automatic or uniform. More recently, the themes of bilingual literacy and literacy have undergone necessary developments, among these, we highlight the concept of biliteracy, defined as:

not just the mere mastery of reading and writing constructed in two different languages, but, rather than that, the development of cognitive and linguistic capacities for representing the world and representing thought that involve the subject's complete linguistic repertoire, that is, that occurs from their two languages, in different contexts and communicative intentions (BRENTANO; FINGER, 2020, p. 2, our translation).<sup>4</sup>

<sup>&</sup>lt;sup>4</sup>"não apenas o mero domínio da leitura e da escrita construído em duas línguas diferentes, mas, antes disso, o desenvolvimento de capacidades cognitivas e linguísticas de representação do mundo e de representação do pensamento que envolvem o repertório linguístico completo do sujeito, ou seja, que ocorre a partir de suas duas línguas, em variados contextos e intenções comunicativas" (BRENTANO; FINGER, 2020, p. 2).

It should be clarified that biliteracy is associated with bilingual literacy processes in two languages thatcan occur consecutively or simultaneously. In consecutive biliteracy, literacy in the L1 is acquired first, so that literacy in the L2 can begin. As for simultaneous biliteracy, literacy in L1 and L2 occurs in parallel. Simultaneous biliteracy is a more recent practice that has occurred due to the increase in the contexts and situations of bilingualism in childhood in contemporary times (GALLOWAYet al. 2020; GARCÍA; KLEIFGEN, 2019; PROCTORet al., 2019; WACKERLE-HOLLMANet al., 2019). Refuting the previously mentioned assumptions that bilingualism could make literacy difficult and compromise children's school performance, current research indicates that the interaction between two languages during literacy does not necessarily lead to delays in this regard (BIALYSTOK, 2007). In fact, Brentano and Finger recall the previously discussed common underlying proficiency model (CUMMINS, 1979), according to which communication skills are composed of underlying skills, some of which can be understood as metalinguistic awareness and its subdivisions. Cummins (1979) proposes that these skills are centralized in a single system that contains the repertoire that is being built by the child, yet this repertoire is not divided into L1 and L2 in bilingual children. For this reason, Brentano and Finger (2020) claim that it is possible to predict the transfer of communication skills and their underlying conditions from L1 to L2 and vice-versa. Following a psycholinguistic view of literacy, the authors emphasize that the bilingual experience promotes the establishment of an automatic association between languages in children that can speed up the process of bilingual literacy, or biliteracy.

Froma translanguaging perspective, García and Godina (2017) carried out a qualitative study with six emergent bilingual Mexican American fourth graders grounded on social literacies and holistic bilingual perspectives to check their reading comprehension of narrative and expository texts in Spanish and English. The children scored well in Spanish reading tests, but varied in the reading and oral skills in English according to proficiency tests, which the authors interpret as expected according to social literacies research. García and Godina (2017) also drew on previous studies that suggested literate bilinguals were able to transfer L1 reading skills to L2 reading and that research had shown a correlation between L1 and L2 reading performance in bilinguals. The bilingual skills reported based on previous literature include translating, translanguaging, use of cognates, and use of L1 to explain their

comprehension of the text in L2 and vice-versa. These skills were investigated in García and Godina's (2017) study and results suggested that translanguaging and translating were used the most frequently, as well as use of L1 to explain their comprehension of the text in L2 and vice-versa. Out of six children, only two made use of cognates, which indicated the need for explicit instruction in this bilingual skill. Vocabulary issues were mentioned by the six participants and raised questions about the choice of L2 texts for children who were developing their reading skills in L2. In fact, when one of the children with low oral English proficiency and reading test scores was given an English expository text with simpler vocabulary to read, she demonstrated not only more comprehension, but also the use of a sophisticated strategy not previously displayed. Furthermore, participants demonstrated a larger variety of reading strategies in two languages than in one, which suggested that a holistic bilingual viewpoint should be used to evaluate bilingual children's reading rather than a parallel monolingual one. All in all, the authors concluded that translanguaging strategies may contribute to reading comprehension in emergent bilingual children.

Focusing on literacy development, Sun-Alperin and Wang (2011) created a study about the influence of phonological and orthographic processing abilities in Spanish (L1) on word reading and spelling development of 89 Spanish-English bilingual children in grades 2 and 3. The participants were given comparable tests that tapped into phonological and orthographic processing in English and Spanish. Study tasks consisted of phoneme deletion and homophone choice tasks containing genuine words as well as pseudowords. Results from the study demonstrated phonological and orthographic transfer from Spanish to English. English word reading and spelling were significantly and uniquely influenced by a Spanish phoneme deletion task for both, genuine words and pseudowords, but spelling was not predicted by the Spanish homophone choice task. Together, these findings indicated that multilingual reading shared phonological and orthographic processes between L1 and L2, but that orthographic patterns could be language-specific, hence not predictive of reading skill transfer.

Additionally, Swanson, Orosco and Lussier (2012) investigated cognitive, linguistic, and reading factors linked to reading disabilities. Participants in the research were 393 Spanish-speaking bilingual children who were (English – L2) or learners of English attending grades 1, 2, and 3 at school. Six groups were formed considering vocabulary and reading tests' outcomes, and children who were at risk of reading disabilities were identified. The participants performed cognitive, and linguistic tests at vocabulary, syntax, and phonological levels, and reading tests with pseudowords. Findings revealed that the naming tasks and

phonological tests were challenging to children at risk of reading disabilities and English learners. Children who experienced those problems also had lower measures of working memory and attention. Overall, it appears that L1 phonological development and cognitive factors were associated with reading disabilities and L2 development.

Chung, Chen and Deacon (2017) carried out a study examining if orthographic processing affected spelling during literacy phase in bilingual situations. The study participants were 152 grade 1 English<sup>5</sup>-speaking children participating in a French immersion program sponsored by public funds in Ontario, Canada. They received French instruction in grade 1 via content-based teaching so that they would develop fluency in French, whereas English instruction began in grade 3, the reason being the fact that English was used as the L1 in that part of the country. The study tests involved English and French orthographic processing tasks with controlled measures of nonverbal skills tasks, phonological awareness in English tests, and automatic naming tasks known as "rapid automatized naming (RAN)" (CHUNG; CHEN; DEACON., 2017, p. 1). Measures of vocabulary and word reading in the two languages were taken into account beforehand. Results suggest a relationship between orthographic processing and spelling in French and English. In both cases, these were within language relations, but there was also a case of French orthographic processing influencing spelling in English, which indicates literacy skill transfer across languages. However, English orthographic processing did not seem to influence spelling in French, this unidirectional finding corroborates previous studies on bilingual literacy (SUN-ALPERIN; WANG, 2011). It is worth mentioning that French and English are considered opaque languages as far as graphophonemic relations are concerned, therefore spelling in these languages requires the acquisition of certain spelling rules in addition to orthographic processing. Chung, Chen and Deacon (2017) suggest that English deviates more than French in terms of graphophonemic relations and reckon that bilingual children may need to resort to orthographic processing within English and between languages when learning English spelling. Moreover, it appears that there may be transfers of orthographic processing from more transparent languages to more opaque ones. To sum up, the authors point out that different instructional settings and situations need to be considered and that issues related transfer of orthographic processing to spelling such as directionality require further investigations.

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<sup>&</sup>lt;sup>5</sup>All children participating in the study spoke English, but not all of them spoke English as their L1. Therefore their classified as speakers of English as L1 if they came from Canadian or other country where English was the L1with English being spoken at home at the rate of 50%. In other cases, the children were considered English Language Learners. 93 children were classified as speakers of English as L1 (EL1) and 56 children were considered English Language Learners (ELLs).

# Discussion of findings and pedagogical implications

The present descriptive bibliographical review intended to examine previous studies about the development of metalinguistic awareness and the occurrence of transfer processes from L1 to L2 in bi/multilingual literacy and reading development. Hamers and Blanc's (2004) model offered the opportunity to observe the findings reported from the studies selected for this review considering that bi/multilingual literacy development is dynamically affected by linguistic, cognitive, contextual, and cultural levels in its individual or group manifestations. Generally speaking, the studies reviewed indicate that the development of metalinguistic awareness seems to be intensified in students who experience bilingual literacy and reading practices. Also, studies demonstrated the transfer of language and literacy skills across languages involved in the selected works, yet it may be influenced by the linguistic systems involved, children's competence in L2, and bilingual literacy practices children have experienced. Transfer of orthographic processing seems to be an aspect that deserves further investigation, particularly considering characteristics of transparency or opaqueness of the languages involved. It seems that problems at phonological levels and L2 vocabulary limitations may be associated with reading disabilities. (GARCÍA; GODINA, 2017; SWANSON; OROSCO; LUSSIER, 2012).

Having said that, the recent studies organized for this review have pedagogical implications for bi/multilingual literacy and reading development. Since studies corroborate the occurrence of a transfer of literacy and language skills across L1 and L2 as beneficial to overall literacy and reading development, it seems advisable that literacy and reading approaches promote the use of students' L1 knowledge in their learning experience. Based on the present bibliographical review findings, the aforementioned strategies may be approached based on translanguaging principles in a way that bi/multilingual students are able to make full use of their linguistic, cognitive, social, and cultural resources. Certain aspects of that pedagogy involve teaching and practicing reading strategies, using authentic materials that are culturally relevant to students' realities, and assessment practices that rely on a bi/multilingual perspective rather than a monolingual one. Regarding the use of strategies, studies indicate pre-reading, while reading, and post-reading practices making use of both L1 and L2 that can occur at orthographic, word, sentence, or text organization levels depending on participants' needs and teaching objectives. Some of these strategies include the use of cognates, vocabulary acquisition, translation and translanguaging, and use of text structure. Linguistic aspects such as vocabulary and syntax may be addressed in an integrated manner, elucidating

how L1 and L2 work, and exploring and expanding metalinguistic awareness in bilinguals in a critical manner. In addition to that, orthographic levels of literacy bi/multilingual literacy pedagogy should consider explicit instruction of orthographic rules of the languages in use with an emphasis on comparing and contrasting the orthographic characteristics of the language systems involved. Also, findings suggest practices that enable the recycling of linguistic content and promote the use of literacy and reading strategies that increase in levels of complexity as students learn.

Overall, it seems that experiences that valued students' backgrounds contributed to their motivation and confidence in their literacy and reading development in L1 and L2. This finding is in line with the multidimensional view of bilinguality, since Hamers and Blanc (2004) emphasize the importance of L1 as language and experience in the sense that valorization of L1 is a predictive factor in bilinguality, in the sense that when L1 and L2 are equally valued, bilinguals are more likely to develop competence in both languages. Yet, when the L1 is devalued, problems such as subtractive bilingualism or bilingual deculturation may arise, resulting in the loss of linguistic and experiential resources. In contrast, a translanguaging approach respects and integrates students' diversity by promoting inclusive education, enabling bi/multilingual learners to use their language repertoire to the best of their abilities, hence fostering inclusive teaching and learning in contemporary times in a multilingual and multicultural world.

# **Final Remarks**

Bi/multilingual literacy research has received increasing attention recently, metalinguistic awareness and transfer of skills in bi/multilingual literacy are themes of interest that have motivated the present descriptive bibliographical review. In order to guide the review two research questions were proposed as follows, *do bilingual experiences lead to improvements in metalinguistic awareness in children? What does the literature say about the transfer of literacy and reading skills between L1 and L2 and vice-versa in students exposed to bilingual experiences?* Overall, the experiences reported in this review appear to suggest that bilingual literacy and reading may foster bi/multilinguals' metalinguistic awareness, therefore, explicit instruction of the relationship between L1 and L2 concerning reading is supported. Additionally, findings confirm the occurrence of transfer processes of literacy and reading abilities across languages in bi/multilingual academic experiences. Therefore,it is possible to say that students' L1 may contribute to bi/multilinguals' overall literacy and reading achievements. However, literacy and reading skills transfer varies according to

several factors, including the languages involved, the level of competence in L1 and L2, age of acquisition, contextual and instructional variables. Further research is needed to deepen the knowledge about language and reading skills transfer processes in bi/multilingual experiencesconsidering those factors. Also, it is worth pointing out that this is not an extensive review, for a more comprehensive review, future studies could take into account a variety of sources across a longer period of time than the one proposed for this review. Another issue that deserves consideration is the fact that the studies selected for the present review represent distinct views of language, some of them examined bilingual literacy from a cognitive or psycholinguistic perspective (BIALYSTOK, 1986; 2001; 2007; BRENTANO; FINGER, 2020; CHUNG; CHEN; DEACON, 2017; SUN-ALPERIN; WANG, 2011; SWANSON; OROSCO; LUSSIER, 2012and others), while other authors departed from a sociolinguistic view of language (GARCÍA; GODINA, 2017; GARCÍA; KLEIFGEN, 2019; PROCTOR et al., 2019). Given the scope of the present research, it was not possible to compare findings across the different views of language, which is a limitation of this study, since findings related to language transfer may be influenced by specific views of language. Future research could address the influence of conceptions of language on the bilingual literacy aspects related to language transfer processes. Nevertheless, this descriptive bibliographical review intends to contribute to a better understanding of the possibilities involved in bi/multilingual literacy and reading development.

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