

INFLUENCE OF FIRST LANGUAGE ON SECOND LANGUAGE IN BILINGUAL CHILDREN. (L1 on L2)

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ABSTRACT

This narrative review explores how a bilingual child's first language (L1) shapes the acquisition and development of a second language (L2), with attention to linguistic transfer, cognitive outcomes, and sociolinguistic influences. The review first outlines core concepts of bilingualism and transfer theory, then synthesizes evidence on phonological, syntactic-morphological, and lexical cross-linguistic effects in bilingual children. It further examines cognitive benefits and challenges associated with managing two languages, as well as the role of home, school, and social attitudes in supporting or constraining bilingual development. Finally, the review considers implications for bilingual education, teacher preparation, and parental involvement, emphasizing the importance of valuing and maintaining L1 while fostering L2. Overall, the literature suggests that although L1 can sometimes hinder specific aspects of L2 development, bilingualism generally confers important linguistic and cognitive advantages when supported by appropriate educational and sociocultural conditions (Bialystok, 2009; Cummins, 1979; Garcia, 2009; Giovannoli et al., 2020).

Keywords: Bilingual child, Second Language, Linguistic, cognitive, Sociolinguistic

INTRODUCTION

Bilingualism is commonly understood as the ability to use two languages with functional proficiency, across different contexts and to varying degrees (Oda, 2017). A bilingual learner is therefore someone who can communicate in two or more languages, even if competence in each is not identical (Oda, 2017).

Researchers often distinguish between simultaneous and sequential bilingualism, depending on when the second language is acquired. Simultaneous bilinguals are exposed to two languages from infancy, typically before the age of three, whereas sequential bilinguals learn an additional language after the first is already established, usually after early childhood (Wiik, 2023). This contrast concerns the timing and order

of acquisition rather than whether a child ultimately becomes equally proficient in both languages.

A central concept in bilingualism research is cross-linguistic influence, which refers to the ways in which knowledge and use of one language affect processing and production in the other. These influences can appear at multiple linguistic levels, including phonology, vocabulary, morphology, syntax, discourse, pragmatics, and sociolinguistic behavior, and are shaped by factors such as the extent of language exposure, switching patterns, and underlying neural mechanisms ("Cross-Linguistic Effects of Bilingualism," 2023). Cross-linguistic influence can be beneficial or detrimental. Positive transfer occurs when

similarities between the languages facilitate learning, such as overlapping sound patterns or shared structural features. Negative transfer arises when differences between the languages lead to systematic errors or slower acquisition; for instance, children whose L1 lacks articles may omit them when speaking English (Paradis & Genesee, 1996; Wallner, n.d.).

Growing up with two languages creates a linguistic experience that differs in important ways from that of monolingual peers. Bilingual children often have smaller vocabularies in each individual language, partly because each language tends to be used in different contexts and domains, yet their combined conceptual repertoire allows them to discuss the same topics using different linguistic resources (Costa & Mariotti, 2023). This distinctive profile makes bilingual children a compelling population for investigating how L1 and L2 interact.

The present review focuses on how L1 shapes bilingual children's L2 development, with particular emphasis on linguistic transfer, cognitive advantages and challenges, and the sociolinguistic environments in which bilingualism unfolds. By synthesizing theoretical perspectives and empirical studies, the review aims to inform educational practices that support balanced and beneficial bilingual growth (Bialystok, 2009; Cummins, 1979; Ellis, 1994).

Methodology

This work is a narrative literature review rather than a systematic review. Sources were identified through searches of scholarly databases such as Google Scholar, PubMed, and publisher platforms (e.g., Cambridge University Press, Wiley-Blackwell, De Gruyter), as well as reputable institutional repositories and professional websites. Key search terms included combinations of "bilingual children," "L1 influence," "L2 acquisition," "cross-linguistic transfer," "cognitive advantages of bilingualism," and "bilingual education."

Peer-reviewed books, journal articles, and authoritative reports published in English were prioritized. Foundational theoretical works (e.g., Cummins, 1979; Odlin, 1989; Ellis, 1994) were included alongside more recent empirical and review studies on bilingual development and cognition (e.g., Fabiano-Smith & Barlow, 2010; Giovannoli et al., 2020). In addition, some high-quality online resources and gray literature

(e.g., Wallner, n.d.; Wiik, 2023; LinkedIn analytical article) were consulted to capture up-to-date perspectives on bilingualism in educational settings.

Studies were selected if they addressed at least one of the following themes: (a) theoretical models of transfer and interdependence; (b) phonological, syntactic-morphological, or lexical transfer in bilingual children; (c) cognitive benefits or challenges associated with bilingualism; or (d) sociolinguistic and educational factors affecting bilingual development. The analysis is interpretive and integrative, aiming to draw connections across diverse sources rather than to provide a quantitative synthesis.

Discussion

Theoretical frameworks

Transfer theory

Transfer theory explains how knowledge of one language influences the acquisition and use of another. Odlin (1989) characterizes transfer as the impact of similarities and differences between a target language and previously learned languages on learners' performance. When structures overlap across L1 and L2, learners may experience facilitative or positive transfer that makes the L2 easier to acquire; when structures diverge, interference can occur, resulting in systematic errors or slower learning (Ellis, 1994; Odlin, 1989). In bilingual children, transfer is not limited to early stages of learning but can affect ongoing development across phonology, grammar, and vocabulary. The degree and direction of transfer depend on multiple factors, such as language dominance, exposure patterns, and the typological distance between the languages (Paradis & Genesee, 1996; Sheng et al., 2006).

Interdependence hypothesis

Cummins' Interdependence Hypothesis proposes that proficiency in L1 and L2 draws on a shared underlying proficiency that supports cognitively demanding tasks such as literacy, academic reasoning, and problem solving (Cummins, 1979). According to this view, strengthening L1 academic skills can positively influence L2 development because higher-order language abilities transfer across languages even when surface features differ. Empirical work has documented positive links between L1 and L2 literacy, showing that strong reading skills in the first language often predict

better reading outcomes in the second (Cummins, 1979; De Houwer, 2009). These findings support additive bilingualism: children can attain high levels of competence in both languages when L1 is maintained and developed, which in turn can promote cognitive flexibility and academic success (Bialystok, 2009; García, 2009).

Linguistic transfer

Phonological influence

By around two years of age, bilingual children generally have differentiated phonological systems for each language, but interactions between these systems remain evident. Paradis and Genesee (1996) proposed three possible patterns—deceleration, acceleration, and transfer—to describe how dual language exposure shapes phonological development. Deceleration refers to slower acquisition in one or both languages compared with monolingual norms, potentially because children apply phonotactic constraints from one language to avoid certain structures in the other.

Acceleration occurs when bilingual experience leads to faster progress in particular phonological domains relative to monolingual peers, although evidence for this pattern is less extensive. Recent research suggests that both acceleration and deceleration can appear simultaneously: Fabiano-Smith and Barlow (2010) observed that Spanish-English bilingual children lagged behind monolinguals for some Spanish sound classes yet performed comparably on others, indicating that interaction between the two systems can both slow and enhance different aspects of phonological growth.

Syntactic and morphological transfer

Syntactic and morphological structures from L1 can strongly shape how children acquire grammar in L2. Bilingual children often produce constructions that reflect L1 rules, especially in areas where the two languages differ markedly. For example, learners whose first language does not mark articles may omit them when speaking English, transferring L1 patterns to L2 sentence construction (Paradis & Genesee, 1996). Such transfer-based errors are a normal part of bilingual development and tend to decrease as exposure and proficiency increase.

Lexical transfer

Lexical transfer involves the influence of vocabulary knowledge in one language on word use and organization in the other. Bilingual children may borrow words across languages, use translation equivalents in creative ways, or allow meanings in one language to shape how related words are understood in the other (Sheng et al., 2006). Research shows that bilinguals often develop language-specific patterns of word production that reflect cross-linguistic variation and context of use, leading to distinct but interconnected lexical systems (Brown & Copple, 2018; Sheng et al., 2006).

Cognitive advantages and challenges

Cognitive benefits

Managing two languages is associated with a range of cognitive benefits across the lifespan. Studies report that bilinguals may show enhanced executive control, including better inhibition, shifting, and updating, as well as advantages in attention, working memory, and cognitive flexibility (Bialystok, 2009; Green, 1998; Giovannoli et al., 2020). These benefits are thought to arise from the constant need to monitor, select, and switch between languages, which trains domain-general control mechanisms. Evidence also suggests that bilingualism can support academic performance, creativity, and cultural sensitivity. Some research points to delayed cognitive decline in older bilingual adults, though findings are still debated. Overall, the literature indicates that bilingual experience can positively shape a range of cognitive functions when both languages are actively used and valued (Bialystok, 2009; Giovannoli et al., 2020).

Cognitive challenges

Despite these benefits, bilingual learners may face certain cognitive and linguistic challenges. Because their total language exposure is divided between two codes, bilingual children can show slower vocabulary growth in each individual language compared with monolingual peers, especially when input in one language is limited (Bialystok, 2009). The need to switch frequently between languages can also produce interference, making lexical retrieval or rule selection more effortful when both systems are highly activated (Green, 1998).

In educational and social contexts, bilingual children may experience reduced self-confidence,

difficulties adjusting to new instructional methods, or stress associated with functioning in a dominant societal language that differs from the home language (Fillmore, 1991; García, 2009). These challenges highlight the importance of supportive environments that recognize bilingualism as an asset rather than a deficit (“The cognitive advantages of bilingualism and challenges faced by international students,” 2023).

Sociolinguistic factors

Home and community environment

The sociolinguistic context in which children grow up plays a crucial role in shaping both L1 and L2 development. Homes that actively use two languages and provide rich input in each tend to foster more balanced bilingualism (De Houwer, 2009). In contrast, when one language dominates daily interactions, the less frequently used language may weaken over time, leading to shifts in proficiency and possible attrition.

Community attitudes toward different languages also matter. Supportive multilingual environments that offer opportunities to use both languages across settings can reinforce children’s motivation and identity as bilingual speakers, whereas negative attitudes or limited opportunities may discourage L1 maintenance and restrict bilingual outcomes (Grosjean, 1982; Lambert, 1975).

Educational settings

Schooling is another key influence on bilingual development. Bilingual and dual-language education programs that promote literacy and academic learning in both L1 and L2 are associated with stronger academic achievement and higher levels of bilingual proficiency (Cummins, 2000; Thomas & Collier, 2002). Such programs build on existing linguistic resources rather than replacing L1 with L2.

In contrast, submersion models that rely solely on the majority language as the medium of instruction can suppress L1 development and negatively affect academic performance, especially for language-minority students (Cummins, 2000; García, 2009). These findings underscore the importance of instructional designs that value and develop both languages.

Social identity and language attitudes

Children’s perceptions of their languages and identities influence how they use and maintain L1

and L2. When a child views the heritage language as low status or less useful, language attrition may occur as L1 is gradually replaced by the dominant language (Grosjean, 1982). Conversely, positive attitudes toward both languages and cultures, supported by families and schools, can facilitate balanced bilingualism and stable bilingual identities (Lambert, 1975).

Educational implications

Bilingual education programs

Findings on L1 influence highlight the value of bilingual and dual-language programs that deliberately support both languages rather than prioritizing only the majority language. Programs that provide sustained instruction and literacy development in L1 alongside L2 tend to yield stronger academic outcomes and more robust bilingual proficiency (Cummins, 2000; García, 2009; Thomas & Collier, 2002). Such models harness positive transfer from L1, reduce harmful forms of negative transfer, and affirm children’s linguistic and cultural identities.

Teacher training

Teachers working with bilingual children need specific preparation to understand cross-linguistic transfer and to design instruction that builds on learners’ existing linguistic resources. Professional development should emphasize strategies such as activating prior knowledge in L1, explicitly addressing areas where negative transfer is likely, and fostering positive attitudes toward multilingualism in the classroom (García, 2009; Paradis & Genesee, 1996). Well-trained teachers are better positioned to interpret bilingual learners’ errors as developmental patterns rather than deficits, and to provide targeted support.

Parental involvement

Parents play an essential role in sustaining bilingual development by maintaining rich input in the home language and encouraging children’s L2 learning through books, conversations, and shared activities. When families are supported in preserving L1, children tend to show stronger cognitive and linguistic outcomes, as well as closer family relationships (Fillmore, 1991; De Houwer, 2009). Collaboration between schools and families can therefore enhance both language maintenance and academic success.

Scope of studies

The literature considered in this review spans classic theoretical contributions and more recent empirical research on bilingualism. Foundational works by Cummins (1979), Odlin (1989), and Ellis (1994) provide key frameworks for understanding interdependence and transfer, while studies such as Paradis and Genesee (1996) and Fabiano-Smith and Barlow (2010) offer detailed evidence on phonological and syntactic development in bilingual children. Cognitive and educational perspectives are informed by research on executive functions, schooling models, and sociocultural influences (e.g., Bialystok, 2009; García, 2009; Giovannoli et al., 2020; Thomas & Collier, 2002). Most studies focus on children acquiring widely used language pairs (such as English with Spanish or other majority languages) in Western or high-resource contexts, which limits generalizability to less-studied languages and settings. Furthermore, many investigations examine specific components (e.g., phonology or literacy) in isolation, so more integrative, longitudinal research is still needed to capture the full complexity of bilingual development across linguistic, cognitive, and sociolinguistic dimensions.

Conclusion

The relationship between a bilingual child's first and second language is shaped by a dynamic interplay of linguistic, cognitive, and sociolinguistic factors. Transfer theory and the Interdependence Hypothesis jointly suggest that L1 can both facilitate and constrain L2 development, with positive outcomes emerging when L1 skills are nurtured and used as a foundation for further learning (Cummins, 1979; Odlin, 1989). Evidence from phonological, syntactic, and lexical domains indicates that cross-linguistic influence is a normal and often productive feature of bilingual acquisition rather than a sign of confusion (Paradis & Genesee, 1996; Fabiano-Smith & Barlow, 2010; Sheng et al., 2006).

At the same time, bilingual experience is associated with notable cognitive advantages, including enhanced executive control and flexibility, alongside potential challenges such as slower vocabulary growth in each language and increased processing demands during language switching (Bialystok, 2009; Green, 1998; Giovannoli et al.,

2020). Sociolinguistic and educational contexts—especially home language practices, school program type, and societal attitudes—play a decisive role in determining whether these advantages are realized and whether both languages are maintained (De Houwer, 2009; García, 2009; Thomas & Collier, 2002).

Overall, the literature supports the view that bilingualism is a valuable resource for children when supported by family, school, and community. Effective educational policies should therefore protect and develop L1, design curricula that capitalize on cross-linguistic transfer, and provide specialized training for teachers working with multilingual learners. Future research would benefit from exploring more diverse language combinations and sociocultural contexts, as well as conducting longitudinal studies that track how linguistic, cognitive, and identity-related factors interact over time in bilingual development.

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