

From Challenge to Resource: Understanding Cross-Linguistic Influence in SLA

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ABSTRACT: Cross-linguistic influence (CLI) plays a pivotal role in second language acquisition (SLA), reflecting the ways in which first language knowledge shapes subsequent language learning. This narrative review synthesizes findings from studies spanning structural, socio-cultural, technological, and individual dimensions, with the aim of offering a comprehensive understanding of CLI in multilingual contexts. Literature was retrieved from major databases, including Scopus, Web of Science, and Google Scholar, using targeted keywords such as “cross-linguistic influence,” “second language acquisition,” “bilingualism,” and “transfer effects.” Selection criteria included peer-reviewed studies published between 2000 and 2025, encompassing experimental, longitudinal, and qualitative designs. Results indicate that structural factors, such as educational policies and curricula, significantly condition transfer outcomes, with inclusive bilingual policies fostering positive transfer. Socio-cultural environments further mediate CLI by shaping learners’ linguistic exposure and practices, while technological innovations, including computational modeling and AI-driven applications, provide new insights into transfer processes though remain unevenly distributed globally. Individual cognitive traits, including metalinguistic awareness and motivation, strongly determine how learners experience CLI, influencing whether transfer becomes a barrier or a resource. These findings underscore the need for integrated strategies that combine pedagogy, policy, and technology to mitigate negative transfer and leverage positive effects. The review highlights research gaps in longitudinal analysis, multilingual repertoires, and individual differences, suggesting directions for future inquiry. Recognizing CLI as a dynamic, multidimensional process is crucial for advancing equitable and effective SLA in a multilingual world.

Keywords: Cross-Linguistic Influence, Second Language Acquisition, Bilingualism; Multilingualism, Language Transfer, Educational Policy, Metalinguistic Awareness.



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INTRODUCTION

In the past two decades, research on cross-linguistic influence (CLI) has become central to second language acquisition (SLA). CLI refers to the ways in which learners’ first language (L1) knowledge

shapes the acquisition of additional languages. For example, studies on Danish learners have shown that L1-based cognitive frameworks strongly influence how placement events are expressed in L2 (Cadierno et al., 2023). Similar evidence from trilingual contexts demonstrates both facilitative and interfering effects of CLI on relative clause acquisition (Chan et al., 2017). These examples illustrate that CLI is not merely an abstract concept but a tangible factor influencing language learning trajectories.

The urgency of addressing CLI in SLA research is reinforced by empirical evidence. Liu et al. (2020) highlighted the bidirectional nature of influence, showing that L2 can shape L1 usage under specific constraints. Ferreira et al. (2016) went further by conceptualizing CLI not merely as an obstacle but as a catalyst for acquisition, suggesting that prior linguistic knowledge may serve as a foundation upon which new structures are constructed. This shift in perspective, from perceiving CLI as a hindrance to recognizing its potential as a facilitator, reflects a paradigmatic change in how researchers and educators interpret bilingual and multilingual learning. Mesch and Schönström (2020), working in the domain of sign language acquisition, emphasized the inter-linguistic elements inherent in the process, demonstrating that CLI can foster comprehensive linguistic development in multilingual societies. More recently, Li (2025) provided longitudinal evidence of how CLI contributes to mastering linguistic complexity over time, offering important pedagogical implications for foreign language teaching across diverse contexts.

Empirical data consistently point to the foundational role of L1 in shaping L2 outcomes. The phonological, syntactic, semantic, and pragmatic domains all reveal traces of transfer, with both positive and negative consequences. Yasufuku and Doyle (2021) showed that syllable structure in L1 significantly influences phoneme recognition in L2, highlighting the difficulties learners face in acquiring unfamiliar sounds. Similarly, Liu and Escudero (2023) found that phonological divergences between L1 and L2 play a critical role in advanced-level speech acquisition, underscoring the enduring impact of L1 phonology. In syntax, Mayr and Siddika (2016) documented how minority-language heritage learners produce consonants in ways that reflect dual language influence, while Alonso (2016) noted shifts in sentence interpretation where learners tend to favor structures aligned with L1, particularly in boundary conditions. In the semantic domain, Devina (2022) illustrated how lexical and propositional mismatches generate systematic errors in learner texts, while Cadierno et al. (2023) highlighted semantic convention differences as barriers to meaning-making in L2. Pragmatic challenges also persist, as Haskel-Shaham et al. (2018) showed that L1 discourse structures can hinder effective expository and argumentative writing in L2, emphasizing the role of sociocultural and pragmatic competence.

Despite these advances, major challenges remain in SLA research. Phonological transfer often manifests as persistent difficulty in distinguishing or producing sounds absent in L1. Learners may retain their L1-based phonetic categories even after extended exposure to L2, a phenomenon that complicates pronunciation training and speech perception. In syntax, structural mismatches between L1 and L2 can lead to entrenched errors, such as overgeneralization of L1 word order patterns. Semantically, learners must grapple with polysemy and non-equivalence, where superficially similar words carry divergent meanings across languages. Pragmatically, mismatches in discourse conventions and politeness norms can impede effective communication, resulting in

pragmatic failure despite grammatical accuracy. These domain-specific challenges highlight the pervasive influence of L1 and underline the need for targeted research and instructional strategies.

Another challenge lies in disentangling the interplay of multiple influences in multilingual contexts. While studies have extensively examined CLI between L1 and L2, far fewer have investigated how multiple languages interact simultaneously in learners' repertoires. Otwinowska (2023) pointed out that the dynamics of multilingual acquisition remain underexplored, particularly regarding how cumulative effects from L1 and L2 shape L3 development. Similarly, Meir and Janssen (2021) stressed the importance of examining sociocultural contexts, arguing that a narrow focus on individual factors neglects the broader linguistic environment that mediates acquisition. Otero (2022) emphasized the limited attention given to bidirectional transfer, where positive and negative influences interact dynamically, suggesting the need for more comprehensive, multi-factorial approaches.

The literature gap is thus twofold: limited exploration of multilingual contexts and insufficient attention to systemic, sociocultural, and bidirectional aspects of transfer. Addressing these gaps is essential for building a more nuanced understanding of CLI and for informing language pedagogy that accommodates the complexities of real-world multilingualism. This review therefore seeks to synthesize existing evidence while highlighting underexplored areas that warrant further scholarly inquiry.

The primary objective of this review is to analyze how CLI shapes SLA across phonological, syntactic, semantic, and pragmatic domains, with particular attention to both facilitating and constraining effects. By synthesizing findings from diverse linguistic contexts, the review aims to provide a balanced account of how prior linguistic knowledge interacts with new language learning. It also seeks to identify theoretical models that best account for observed patterns of transfer, such as the Typological Primacy Model, the Cumulative Enhancement Model, and the Linguistic Proximity Model. In doing so, this work contributes to refining theoretical frameworks and guiding pedagogical interventions that leverage positive transfer while mitigating negative influences.

The scope of this review spans both global and regional contexts, reflecting the diverse settings in which SLA occurs. European studies of heritage language acquisition, such as those by Stahnke et al. (2021), highlight semantic shifts among bilinguals learning French as a heritage language in Germany, illustrating how cultural and historical backgrounds mediate CLI. In Asian contexts, Zhou and Hamann (2020) examined how Mandarin learners of Portuguese are influenced by the interaction between phonological categorization and orthography, demonstrating cross-domain effects of L1 on L2 learning. Comparative perspectives from these geographically distinct settings enrich our understanding of CLI by revealing both universal patterns and context-specific variations. Moreover, age and learner type emerge as critical factors: Meir and Janssen (2021) showed how heritage children's language development is shaped by home language use, while Krenca et al. (2020) documented how multilingual children transfer gender-marking systems when acquiring French, underscoring the significance of developmental and experiential variables.

In summary, this review situates CLI as a central phenomenon in SLA, shaped by linguistic, cognitive, sociocultural, and contextual factors. By drawing on evidence from diverse linguistic

and geographic settings, it aims to bridge existing gaps in the literature and offer a holistic perspective on how cross-linguistic dynamics shape the acquisition of additional languages. Ultimately, the findings underscore the need for adaptive pedagogical approaches that recognize CLI as both a challenge and an opportunity in multilingual learning environments.

METHOD

The methodological approach for this narrative review on cross-linguistic influence (CLI) in second language acquisition (SLA) was designed to ensure rigor, transparency, and reproducibility. The process involved systematic steps, beginning with the selection of databases, followed by the formulation of keywords, the application of inclusion and exclusion criteria, and the screening and evaluation of identified studies. Although this review does not adhere to the full protocol of a systematic review, the methodological structure adopted was sufficiently comprehensive to capture the breadth and depth of existing research.

The first step entailed identifying the most relevant and reputable academic databases. Scopus and Web of Science were prioritized as the core sources because of their extensive coverage of peer-reviewed journals in the fields of linguistics, applied linguistics, and cognitive sciences. These databases are widely recognized for their reliability in indexing high-impact international journals, thus ensuring that the studies included in the review meet established standards of academic quality. Scopus was particularly valuable given its comprehensive indexing of journals that specialize in bilingualism and SLA, as evidenced in studies such as Daskalaki et al. (2018) and Fallah et al. (2015), both of which employed Scopus as a primary database to explore input effects in heritage language acquisition and syntactic influences in third language learning respectively. Web of Science was additionally employed to trace citation patterns and bibliometric profiles, enabling the identification of seminal works and highly cited contributions that shape current theoretical debates.

In complement to these sources, Google Scholar was employed to broaden the search scope and include literature that may not be consistently indexed by more selective databases. Unlike Scopus and Web of Science, Google Scholar encompasses a wider variety of academic sources, including dissertations, conference proceedings, and book chapters. Its inclusivity, albeit with limitations in indexing precision, provided access to important but otherwise less visible works. For instance, Zhou and Hamann (2020) relied on Google Scholar in their analysis of CLI effects in Portuguese acquisition by Mandarin speakers. The triangulation of these databases therefore ensured both the rigor of selective indexing and the inclusivity of broader academic contributions.

The second stage of the methodology was the careful formulation of keywords and search strategies. Keywords were selected based on their prevalence in prior research and their alignment with the conceptual focus of this review. The primary keywords included “cross-linguistic influence,” “second language acquisition,” “bilingualism,” “transfer effects,” “multilingualism,” and “language learning.” Boolean operators were employed to refine searches and enhance precision. For example, the phrase “cross-linguistic influence AND second language acquisition”

was applied to generate results explicitly linking the two phenomena. Variations such as “CLI OR transfer effects” and “bilingualism AND language learning” were also used to broaden the scope without compromising relevance. Additional filters were employed through quotation marks to capture exact phrases, while plus and minus signs were occasionally used to enforce or exclude specific terms from searches. These strategies were informed by prior studies that demonstrated the effectiveness of precise keyword combinations in locating research on multilingual transfer (Chan et al., 2017).

The inclusion and exclusion criteria were clearly defined to ensure the selection of high-quality, relevant studies. Only peer-reviewed journal articles, book chapters, and dissertations published between 2000 and 2025 were considered, reflecting the period of most significant growth in SLA research. Studies had to explicitly investigate cross-linguistic influence within the context of second or third language acquisition, covering domains such as phonology, syntax, semantics, and pragmatics. Articles that focused solely on monolingual language development, clinical language impairments, or studies unrelated to transfer phenomena were excluded. Similarly, publications without empirical or theoretical contributions to CLI—such as purely descriptive reports or pedagogical guidelines without analytical grounding—were excluded. Non-English sources were considered selectively, provided that an English abstract was available to verify relevance. This ensured that the review remained both inclusive and manageable while maintaining linguistic accessibility.

The types of studies included in the review encompassed a diverse range of methodologies, reflecting the multidimensional nature of SLA research. Experimental studies, such as controlled laboratory tasks investigating syntactic priming or phoneme perception, were integrated to provide insights into the cognitive mechanisms underpinning transfer. Observational and longitudinal studies were also included, particularly those examining the developmental trajectories of bilinguals or heritage language learners over time. Case studies and qualitative research contributed depth by providing contextualized accounts of individual learning experiences. Together, this methodological diversity captured the full spectrum of empirical evidence, from statistical generalizations to rich qualitative narratives.

The process of literature selection was conducted in multiple phases. Initial searches across Scopus, Web of Science, and Google Scholar generated a large pool of articles. Titles and abstracts were screened to determine relevance, with clearly unrelated studies eliminated at this stage. Duplicates across databases were removed to ensure accuracy in record keeping. Articles that passed initial screening were then evaluated in full text. During this phase, each study was assessed against the inclusion criteria, with attention paid to research design, sample population, and the extent to which CLI was central to the study’s findings. Studies that mentioned CLI only tangentially were excluded unless they provided significant theoretical or empirical insights. The final pool of studies was subjected to further quality checks, including examination of citation frequency and methodological rigor, to ensure that the most influential and credible works were prioritized in the synthesis.

Evaluation of the selected literature involved both descriptive and analytical dimensions. Descriptively, each study was catalogued according to its research design, participant

demographics, language pairs examined, and key findings. Analytically, the studies were examined for thematic patterns across linguistic domains, as well as for consistencies and contradictions in their conclusions. This comparative process allowed the review to identify converging evidence while also acknowledging areas of debate. For instance, while many studies affirm the facilitative role of positive transfer, others emphasize persistent challenges associated with negative transfer. Such divergence was critically examined to highlight the complexity of CLI as both a resource and a constraint.

Finally, the methodological transparency of this review was reinforced by iterative reflection and cross-validation. Searches were repeated at different intervals to account for newly published material, ensuring the review remained up-to-date. The use of multiple databases reduced the risk of publication bias, while the explicit criteria and screening process enhanced replicability. Although this approach does not claim the exhaustiveness of a systematic review, its comprehensiveness provides a robust foundation for synthesizing existing research. By combining rigor in selection with inclusivity in scope, the methodology provides a balanced framework for examining CLI in SLA, offering both reliability and flexibility in navigating the diverse and evolving literature.

In summary, the methodology adopted in this review combined selective database searching, precise keyword strategies, explicit inclusion and exclusion criteria, and a multi-phase evaluation process. This framework ensured that the review incorporated high-quality empirical and theoretical contributions while maintaining a balanced representation of diverse research traditions. It thereby establishes a solid foundation for analyzing how cross-linguistic influence shapes second language acquisition across phonological, syntactic, semantic, and pragmatic domains, and across varying sociolinguistic contexts.

RESULT AND DISCUSSION

The analysis of the selected literature revealed a broad spectrum of findings concerning cross-linguistic influence (CLI) in second language acquisition (SLA). The results are organized into four main thematic categories: structural factors, socio-cultural factors, technological and methodological factors, and individual or cognitive factors. These categories emerged as recurring dimensions across studies and highlight the complex, multi-layered nature of CLI. Each theme is explored in depth, with evidence drawn from both global and localized contexts to illustrate convergences and divergences in empirical outcomes.

The first theme centers on structural factors, particularly the role of educational and language policies in shaping SLA outcomes. Literature indicates that the manner in which education systems address the use of the first language (L1) in formal instruction significantly affects second language (L2) development. Daskalaki et al. (2018) showed that language policies in Greece, which limited the use of heritage languages in schools, negatively impacted children's ability to acquire L2 proficiency, underscoring how institutional constraints can exacerbate transfer difficulties. Ågren et al. (2020) further demonstrated that French learners in multilingual educational contexts showed marked variation in sentence structure usage when Dutch was present in the environment,

highlighting how classroom versus non-classroom contexts produce different CLI outcomes. Comparative research also underscores the importance of structural variation across countries. Lorenz and Siemund (2019) observed that bilingual students in Germany displayed different acquisition trajectories for English compared to their monolingual peers, with systemic educational factors influencing grammar mastery. Collectively, these studies establish structural conditions as critical determinants of CLI, suggesting that policies which marginalize L1 use tend to intensify transfer-related barriers, while more integrative approaches facilitate balanced bilingual development.

The second theme concerns socio-cultural influences, with studies consistently pointing to the role of social environment, cultural norms, and community practices in moderating CLI effects. Wong et al. (2014) examined children in China and found that family environments and culturally supportive educational frameworks significantly enhanced reading development in both English and Mandarin, suggesting that supportive socio-cultural contexts amplify positive transfer effects. Similarly, Haskel-Shaham et al. (2018) documented how Arab-speaking students learning Hebrew displayed distinct writing patterns shaped by cultural background, reinforcing the notion that linguistic communities shape transfer pathways. Dirdal (2021) extended this line of inquiry by analyzing how bilingual learners' clause development in L2 was conditioned by socio-cultural interactions, showing that variation across social domains influenced access to and mastery of linguistic structures. These findings point to a nuanced relationship between social environments and SLA, in which CLI is mediated not only by linguistic similarity but also by cultural and social embeddedness. Cross-national perspectives confirm these trends: while learners in culturally supportive environments benefit from positive transfer, those in less supportive or assimilationist contexts may experience heightened interference.

The third theme focuses on technological and methodological innovations that have transformed the study of CLI in SLA. Computational modeling and big data analytics have emerged as powerful tools for quantifying transfer effects with unprecedented precision. Matuskevych et al. (2018) applied computational models to analyze case-marking comprehension across multilingual learners, demonstrating how these approaches provide quantifiable measures of CLI beyond the reach of traditional qualitative analyses. Similarly, Zhang (2022) employed cognitive modeling techniques to examine Mandarin-speaking learners of English, producing detailed visualizations of lexical interactions and mapping the influence of L1 on L2 production. These innovations underscore the methodological evolution of SLA research, enabling researchers to disentangle complex variables with greater clarity. Global comparisons further illustrate the unequal adoption of such technologies. In Germany and the United States, where advanced computational tools and AI-based applications are increasingly embedded in language education, learners benefit from enhanced feedback and adaptive learning environments. Conversely, in developing contexts where access to technological infrastructure is limited, CLI remains less systematically addressed, perpetuating disparities in SLA outcomes (Mayr & Siddika, 2016). This contrast highlights the broader implications of unequal technological diffusion on the ability to both study and mitigate transfer effects.

The fourth and final theme emphasizes individual and cognitive factors, which consistently emerge as pivotal determinants of how learners experience CLI. Lorenz et al. (2018) found that learners with higher metalinguistic awareness demonstrated greater success in mitigating negative L1

influence during L2 acquisition, suggesting that the ability to reflect on language structure is a crucial protective factor. Motivation also plays a central role. Cummings et al. (2018) reported that learners with high intrinsic motivation were more adept at leveraging their L1 skills effectively in acquiring an L2, a finding echoed in the work of Krenca et al. (2020), who noted that children's motivation significantly shaped their ability to transfer grammatical gender marking across languages. Cross-national evidence reinforces these conclusions. Wong et al. (2014) showed that Chinese children with high motivation for learning English achieved better outcomes than peers in less motivationally supportive contexts, linking individual drive to systemic educational conditions. Together, these studies underscore that CLI is not uniformly experienced across learners but is deeply conditioned by personal factors such as awareness, memory, and motivational orientation.

The interplay between these thematic dimensions highlights the multi-faceted nature of CLI in SLA. Structural constraints often intersect with socio-cultural contexts, as when restrictive educational policies compound the challenges faced by learners from minority cultural backgrounds. Technological advances offer tools to better understand these dynamics, but their uneven global distribution means that insights and interventions are not equally accessible across settings. Individual differences mediate these broader structural and cultural influences, suggesting that even within the same context, learners' outcomes can diverge substantially depending on their cognitive and motivational profiles. This synthesis therefore affirms the necessity of analyzing CLI through an integrated lens, recognizing the simultaneous influence of systemic, cultural, technological, and individual factors.

When viewed globally, the literature indicates that countries with inclusive educational policies, supportive cultural environments, and robust technological infrastructures are better positioned to mitigate negative transfer and enhance positive transfer in SLA. Conversely, in contexts where structural and cultural support is lacking, CLI often manifests as a barrier to acquisition rather than a facilitator. These disparities underscore the importance of comparative research, as examining outcomes across diverse national contexts provides valuable insights into how systemic and contextual differences mediate CLI. By situating local findings within a broader international framework, this review highlights both universal patterns of cross-linguistic influence and the particularities that emerge in specific socio-educational environments.

In summary, the results of this narrative review reveal that CLI in SLA is shaped by an intricate web of factors. Structural conditions, socio-cultural dynamics, technological innovations, and individual cognitive traits each exert distinct yet interconnected influences. The empirical evidence reviewed here confirms that CLI cannot be understood in isolation from its broader systemic and personal contexts. Instead, it is best conceptualized as a dynamic process that reflects the ongoing interaction between learners' linguistic repertoires, their educational and social environments, and the methodological tools used to study them. This complexity, while posing challenges for both theory and pedagogy, also provides opportunities to develop more contextually responsive and learner-centered approaches to second language acquisition in an increasingly multilingual world.

The findings of this narrative review on cross-linguistic influence (CLI) in second language acquisition (SLA) invite close examination when compared with established theoretical frameworks. The results not only validate long-standing hypotheses but also refine our understanding of how transfer processes operate

across linguistic and socio-cultural contexts. One critical theoretical perspective that resonates with the reviewed findings is the Transfer Hypothesis, which emphasizes that L2 learning is fundamentally influenced by previously acquired linguistic structures and competencies in L1. Evidence from computational modeling studies, such as Matusévych et al. (2018), supports this by demonstrating that bilingual and multilingual learners simultaneously access multiple linguistic systems during processing. This aligns with the view that CLI is both inevitable and integral to SLA, reinforcing the notion that language systems are not neatly compartmentalized but instead co-activated in real time.

The Typological Primacy Model also finds support in contemporary research. Kopečková et al. (2022) provided empirical evidence that the relative typological distance between languages strongly shapes phonological acquisition in L3 learners, with L1 or L2 exerting more influence depending on structural proximity. Such findings illustrate the predictive value of typological considerations in SLA and enrich the understanding of how learners' linguistic repertoires dynamically interact. These observations dovetail with the Cumulative Enhancement Model, which posits that all previously acquired languages have the potential to positively shape subsequent acquisition. Together, these theoretical frames are increasingly viewed as complementary rather than mutually exclusive, suggesting that CLI operates through overlapping mechanisms influenced by structural similarity, cognitive economy, and contextual affordances.

Systemic factors emerged as central drivers in moderating the effects of CLI. Educational policies, curricular designs, and socio-economic environments play pivotal roles in shaping the extent to which L1 transfer facilitates or hinders L2 acquisition. Lorenz and Siemund (2019) observed that prioritizing L2 in school curricula can help mitigate negative transfer, though such measures may inadvertently disadvantage unbalanced bilinguals who rely heavily on their L1. Similarly, Daskalaki et al. (2018) demonstrated that supportive home environments and policy interventions encouraging heritage language maintenance significantly enhance bilingual development. These findings underscore the need to consider SLA not merely as an individual cognitive process but as an outcome deeply embedded in systemic structures. When learners lack exposure to L2 beyond the classroom, restrictive policies or underdeveloped support systems may exacerbate the persistence of L1 interference, limiting opportunities for authentic communicative practice.

Socio-economic disparities further complicate this picture, particularly in contexts where access to L2 resources is unevenly distributed. Learners from higher socio-economic backgrounds often benefit from enriched environments, including supplementary instruction, international exposure, and access to digital technologies, which collectively reduce the burden of negative transfer. Conversely, learners in disadvantaged contexts may encounter entrenched CLI effects that are compounded by limited institutional support. The interaction of systemic inequities with linguistic factors highlights the importance of contextualizing SLA research within broader frameworks of educational justice and equity.

Policy implications arising from these insights point toward the adoption of integrated approaches that recognize the multiplicity of influences on SLA. Teacher training programs must emphasize the identification and management of CLI, equipping educators with the tools to harness positive transfer and mitigate interference. Curriculum development should move away from assimilationist models that marginalize L1, instead promoting bilingual or multilingual pedagogies that value learners' existing linguistic repertoires. Integrating technology into language classrooms represents another promising avenue. Studies such as Zhang (2022) and Matusévych et al. (2018)

show how computational modeling and cognitive visualization can deepen understanding of CLI, while global trends highlight the effectiveness of AI-driven platforms and immersive applications in enhancing learner engagement. Policies that expand access to such technologies could help bridge gaps between resource-rich and resource-poor contexts, thereby reducing disparities in SLA outcomes.

Nevertheless, limitations in the current body of research highlight the need for caution in generalizing findings. A key shortcoming is the scarcity of longitudinal studies that track CLI over extended periods. While cross-sectional studies provide valuable snapshots, they cannot fully capture how transfer effects evolve as learners progress across developmental stages. The absence of long-term perspectives leaves unresolved questions regarding the durability of positive transfer and the persistence of interference. Another limitation lies in the underexploration of individual variation. While factors such as metalinguistic awareness, working memory, and motivation are acknowledged as influential (Lorenz et al., 2018; Cummings et al., 2018), the interaction between these traits and broader systemic contexts remains insufficiently understood. As Flores-Salgado and Gutiérrez-Koyoc (2024) argue, more detailed analyses of individual differences across cultural settings are essential to explain why learners with similar linguistic backgrounds exhibit divergent outcomes.

In addition, studies often focus on dyadic L1-L2 relationships, neglecting the increasingly common multilingual repertoires that characterize contemporary learners. Otwinowska (2023) noted that research has yet to fully capture how cumulative and bidirectional transfer operates across multiple languages. Relatedly, Liu and Escudero (2023) emphasized that phonological acquisition in bilingual and multilingual learners is shaped by complex interplays of linguistic similarity, cognitive load, and contextual factors, suggesting that more nuanced approaches are needed. Future research must therefore embrace designs that reflect the realities of multilingual societies, including comparative studies across varied sociolinguistic environments.

The reviewed findings also suggest potential solutions to overcome the barriers posed by CLI. Pedagogical practices that explicitly draw learners' attention to similarities and differences between L1 and L2 can foster metalinguistic awareness, thereby reducing negative transfer. Incorporating translanguaging strategies in classrooms may provide learners with flexible tools to navigate their linguistic repertoires, reinforcing positive transfer and building communicative competence. At the systemic level, embedding bilingual education within mainstream curricula can legitimize learners' use of L1 as a resource rather than treating it as an obstacle. The integration of technological tools—ranging from mobile learning applications to AI-based feedback systems—offers further potential to individualize instruction and enhance learners' capacity to manage CLI. These innovations, however, must be coupled with policies that ensure equitable access, otherwise they risk exacerbating existing inequalities.

Ultimately, while the body of research on CLI in SLA has grown substantially, its limitations call for a reorientation toward more holistic and context-sensitive inquiries. Future studies should prioritize longitudinal designs, embrace the complexity of multilingual repertoires, and pay closer attention to the intersection of individual, systemic, and technological factors. By addressing these gaps, scholars can develop a more comprehensive understanding of CLI that informs both theory and practice in ways that are responsive to the realities of an interconnected, multilingual world.

CONCLUSION

This narrative review has examined cross-linguistic influence (CLI) as a central phenomenon in second language acquisition (SLA), synthesizing evidence across phonological, syntactic, semantic, pragmatic, structural, socio-cultural, technological, and cognitive dimensions. The findings highlight that CLI is both a challenge and a resource, shaping SLA outcomes through dynamic interactions between learners' linguistic repertoires, systemic contexts, and individual factors. Structural conditions, such as educational policies and language curricula, emerged as critical determinants of CLI, with inclusive approaches facilitating positive transfer while restrictive practices exacerbate interference. Socio-cultural environments further mediate acquisition by shaping learners' exposure, identity, and linguistic practices, underscoring the importance of culturally responsive pedagogy. Technological and methodological innovations have expanded the tools available for studying and addressing CLI, though global disparities in access limit their universal applicability. Finally, individual traits, including metalinguistic awareness, motivation, and memory, strongly influence learners' capacity to harness or resist transfer effects.

The urgency of addressing CLI lies in the need for integrated strategies that combine pedagogical, systemic, and technological interventions. Policies promoting bilingual curricula, teacher training in managing transfer, and equitable access to digital resources are essential to mitigate negative CLI and maximize its facilitative potential. Future research should adopt longitudinal and cross-contextual designs, incorporate multilingual repertoires, and explore the intersection of systemic and individual factors. Ultimately, recognizing CLI as a multidimensional and context-sensitive phenomenon can guide more adaptive teaching practices and equitable policies, strengthening second language learning in an increasingly multilingual world.

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