

Beyond Code-mixing: A Psycholinguistic Reassessment of Child Language Development

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Abstract

Code-mixing has long been a central focus of research on bilingual child language development, particularly in multilingual societies where children are exposed to two or more languages from an early age. While earlier studies frequently interpreted code-mixing as evidence of linguistic deficiency or language confusion, contemporary psycholinguistic research suggests that it is a normal and strategic feature of bilingual language use. This study presents a thematic review that reassesses child language development beyond the traditional emphasis on code-mixing. Drawing on the psycholinguistic perspectives of Surakat (2001, 2014, 2004), Bialystok, and Genesee, the review synthesises theoretical and empirical literature to examine the cognitive, linguistic, and environmental factors that shape children's linguistic competence. The review identifies five recurring themes: code-mixing as a developmental strategy, cognitive mechanisms underlying bilingual language processing, the role of language input and social interaction, metalinguistic awareness, and the influence of multilingual environments on language acquisition. The analysis reveals that code-mixing is better understood as an outcome of interacting psycholinguistic processes rather than as a direct measure of linguistic competence. The study further argues that linguistic competence develops through the dynamic interplay of cognitive maturation, executive control, language exposure, communicative experience, and sociocultural context. It proposes an integrated psycholinguistic framework that extends Surakat's contributions by incorporating contemporary perspectives on bilingual language development. The study contributes to scholarship by shifting attention from observable language mixing to the underlying mechanisms of language acquisition and by offering a contextually relevant framework for understanding child language development in multilingual settings such as Nigeria. The review concludes by recommending multidimensional approaches to future research on bilingual child language development.

Keywords: Child language development; code-mixing; psycholinguistics; bilingualism; linguistic competence

Introduction

Language is one of the most important tools through which children learn, communicate, and interact with the world around them. During early childhood, children acquire language rapidly through exposure to their environment, interaction with caregivers, and cognitive development. This process becomes more complex in multilingual societies, where children are exposed to two or more languages simultaneously. In countries such as Nigeria, where English functions as the official language alongside numerous indigenous languages, bilingualism and multilingualism are common features of children's everyday experiences. Consequently, many children alternate between languages during communication, a phenomenon commonly referred to as code-mixing.

For many years, code-mixing has been a major focus of research on bilingual child language development. Earlier scholars often regarded it as evidence of language confusion, incomplete language acquisition, or limited linguistic competence. Such perspectives were largely influenced by monolingual assumptions, which expected children to keep their languages completely separate. However, advances in psycholinguistics and bilingualism research have challenged these views. Contemporary scholars argue that bilingual children are capable of distinguishing between their languages from an early age and that code-mixing often reflects strategic language use rather than linguistic deficiency. From this perspective, code-mixing is considered a natural aspect of bilingual communication and an adaptive response to multilingual environments.

Despite these developments, much of the literature continues to place considerable emphasis on code-mixing as the primary explanation for bilingual children's language behaviour. This emphasis has sometimes overshadowed other important psycholinguistic processes that contribute to language development. Factors such as cognitive maturation, executive control, working memory, metalinguistic awareness, language input, social interaction, and the quality of children's linguistic environment all influence how language is acquired, processed, and used. Focusing exclusively on code-mixing therefore provides only a partial understanding of children's linguistic competence.

The Nigerian context further highlights the need for a broader perspective. Nigerian children grow up in linguistically rich

environments where indigenous languages coexist with English and, in many communities, additional local languages. Daily communication often involves movement between these languages depending on the setting, the interlocutor, and the purpose of interaction. Consequently, code-mixing frequently reflects the sociolinguistic realities of multilingual communities rather than weaknesses in children's language development. Understanding child language acquisition in such contexts therefore requires approaches that consider both cognitive and environmental influences.

Among Nigerian scholars, Surakat (2001, 2004, 2014) has made significant contributions to the study of child language development by emphasising the interaction between children's cognitive growth and their linguistic environment. His work provides an important foundation for understanding language acquisition within multilingual settings. Similarly, international psycholinguistic scholars such as Bialystok (2017) and Genesee (2019) have demonstrated that bilingualism is associated with enhanced metalinguistic awareness, executive control, and flexible language use. Together, these perspectives suggest that children's linguistic competence develops through the interaction of multiple cognitive, linguistic, and environmental factors rather than through code-mixing alone.

Against this background, this article presents a thematic review of the literature to reassess child language development from a psycholinguistic perspective. Rather than treating code-mixing as the central explanation for bilingual language acquisition, the review synthesises evidence from the works of Surakat, Bialystok, Genesee, and other relevant scholars to identify broader factors that influence children's linguistic competence. The article argues that code-mixing should be understood as one manifestation of underlying psycholinguistic processes rather than as the principal indicator of language development. By integrating diverse theoretical perspectives, the review proposes a more comprehensive framework for understanding bilingual child language development, particularly within multilingual contexts such as Nigeria.

Literature Review

The Concept of Code-Mixing

The concept of code-mixing has received considerable scholarly attention, particularly in multilingual societies where speakers frequently alternate between languages during communication. Although

researchers generally agree that code-mixing involves the use of two or more languages within a discourse, they differ in their emphasis on its linguistic structure, social functions, and cognitive implications. Adebija (1989) defines code-mixing as the embedding of linguistic units such as words, phrases, or clauses from one language into another within a single utterance. According to him, code-mixing is a natural outcome of multilingual competence and serves various communicative functions, including expressing identity, filling lexical gaps, emphasizing meaning, and adapting to the linguistic preferences of interlocutors. His definition highlights the functional and sociolinguistic dimensions of language contact in multilingual communities such as Nigeria. However, Adebija's explanation focuses primarily on the social motivations for code-mixing and gives limited attention to the psycholinguistic mechanisms that underlie bilingual language production.

Similarly, Gani-Ikilama (1990) views code-mixing as the incorporation of lexical and grammatical elements from one language into another during communication. He argues that bilingual and multilingual speakers employ code-mixing to achieve effective communication, particularly where equivalent expressions are unavailable in one language. His perspective emphasizes the communicative efficiency of code-mixing and its role in facilitating interaction among multilingual speakers. A limitation of this view is that it pays less attention to the systematic grammatical constraints governing code-mixing and largely treats it as a communicative strategy.

According to Surakat, T Y. in his unpublished doctoral dissertation, *Code-Mixing in the Language Development of a Bilingual Nigerian Child* (2001), code-mixing is not presented as a single dictionary-style definition. Rather, it is described through its occurrence in the speech of a Nigerian child simultaneously acquiring multiple languages. Surakat views code-mixing as the systematic blending of linguistic elements from two or more languages within the same utterance during the normal process of bilingual language development. He argues that this behaviour reflects the child's developing linguistic competence and is governed by identifiable grammatical patterns and communicative motivations rather than confusion.

Collectively, these scholars demonstrate the evolution of thinking about code-mixing. Early Nigerian scholars such as Adebija (1989) and Gani-Ikilama (1990) primarily emphasize the communicative and sociolinguistic functions of language mixing in multilingual contexts. Surakat's works (2001, 2004, 2014) progressively extend this

understanding by incorporating linguistic, sociocultural, and psycholinguistic perspectives. Despite these contributions, a notable gap remains in explaining how code-mixing develops during childhood and how psycholinguistic processes interact with environmental and social factors in bilingual language acquisition. This gap justifies continued research into code-mixing, psycholinguistic reassessment, and child language development, particularly in multilingual settings such as Nigeria.

Bialystok (2017) views code-mixing as a natural consequence of bilingual language processing, arising because both languages remain active in the bilingual mind. Rather than indicating linguistic confusion, code-mixing reflects bilingual speakers' ability to draw on their complete linguistic repertoire according to communicative needs and language proficiency. The conceptualization of code-mixing by the author is valuable because it explains the phenomenon from a psycholinguistic perspective, emphasising that bilingual speakers naturally access both languages simultaneously during communication. This view effectively dispels the misconception that code-mixing is evidence of language confusion or linguistic incompetence, particularly among bilingual children. However, the definition gives greater prominence to cognitive processes than to the social and cultural factors that also influence language choice. It does not account for how context, identity, audience, or societal language norms shape code-mixing practices, making it less comprehensive for studies conducted in multilingual settings such as Nigeria.

Genesee (2019) describes code-mixing as the use of elements from two languages within the same utterance or conversation by bilingual speakers. He argues that code-mixing is a normal developmental characteristic of bilingual children and should not be interpreted as evidence of language confusion. Instead, it reflects developing bilingual competence and may result from differences in language exposure, language dominance or temporary lexical gaps. This perspective is also supported by extensive research showing that bilingual children are capable of differentiating between their languages while mixing them appropriately according to communicative needs. Nevertheless, the definition focuses primarily on bilingual language acquisition and proficiency, paying comparatively less attention to the sociolinguistic functions of code-mixing, such as expressing identity, signalling group membership, creating stylistic effects or adapting to different communicative situations. Consequently, while Genesee's explanation is

highly relevant to psycholinguistic research, it should be complemented with sociolinguistic perspectives.

Impact of Code Mixing on Linguistic Competence

Code mixing, the use of elements from two or more languages within the same utterance, is a common feature of bilingual and multilingual communities. In Nigeria, where indigenous languages coexist with English, code mixing is widespread among children and adults. Contemporary psycholinguistic research suggests that code mixing should not be viewed merely as a sign of linguistic deficiency; rather, its impact on linguistic competence depends on learners' proficiency, exposure, and communicative context.

Positive Impact of Code Mixing on Linguistic Competence

1. Enhances Cognitive Flexibility

Bialystok (2017) argues that bilingual individuals who regularly manage two languages develop stronger executive control, selective attention, and cognitive flexibility. These cognitive advantages support overall linguistic competence by enabling learners to choose appropriate linguistic forms according to context.

2. Facilitates Language Development

According to Genesee (2019), bilingual children use code mixing strategically rather than randomly. Children often mix languages to compensate for vocabulary gaps while maintaining communication. This demonstrates communicative competence rather than confusion.

3. Promotes Communicative Competence

Genesee (2019) maintains that bilingual children learn to separate their languages from an early age and employ code mixing appropriately according to conversational needs. Thus, code mixing reflects pragmatic competence and effective communication rather than language confusion.

4. Supports Second Language Acquisition

In multilingual classrooms, learners often use their first language to understand difficult concepts in English. Appropriate code mixing reduces communication barriers and facilitates vocabulary acquisition and comprehension.

Negative Impact of Code Mixing on Linguistic Competence

1. Restricted Vocabulary Development

Excessive dependence on code mixing may reduce learners' efforts to acquire equivalent vocabulary in the target language, thereby limiting lexical growth.

2. Interference with Grammatical Accuracy

Frequent mixing may lead learners to transfer grammatical structures from one language to another, resulting in syntactic and morphological errors, especially among less proficient speakers.

3. Reduced Proficiency in Formal Communication

Students who rely heavily on code mixing may struggle to produce coherent academic writing or formal spoken English where standard language use is required.

4. Pronunciation and Phonological Interference

Persistent code mixing may influence pronunciation patterns, making it difficult for learners to achieve native-like pronunciation in the second language.

Thematic Analysis of the literature

Theme One: Code-Mixing as a Developmental Strategy

One of the most consistent themes in the literature is the reconceptualization of code-mixing as a normal feature of bilingual development rather than evidence of linguistic confusion. Earlier studies often viewed children's alternation between languages as an indication that they had not fully mastered either language. However, contemporary psycholinguistic research challenges this interpretation. Genesee argues that bilingual children are capable of differentiating their two languages from an early age and use code-mixing strategically when interacting with different interlocutors or when lexical items are temporarily inaccessible in one language. Similarly, Bialystok's work suggests that bilingual children manage two linguistic systems efficiently, indicating cognitive flexibility rather than language deficiency.

Within the Nigerian context, Surakat (2001, 2004, 2014) emphasizes that multilingual children develop language within environments where multiple languages naturally coexist. Consequently, code-mixing reflects the linguistic realities of children's daily interactions rather than developmental failure. Collectively, these studies suggest that code-

mixing should be interpreted as a communicative strategy arising from bilingual competence.

Theme Two: Cognitive Processes Underlying Child Language Development

A second recurring theme concerns the central role of cognitive processes in language acquisition. The reviewed literature consistently demonstrates that language development depends on internal cognitive mechanisms such as attention, working memory, executive control, language processing, and lexical retrieval.

Bialystok (2017) argues that bilingual children often exhibit enhanced executive control because they constantly select one language while suppressing another. These cognitive abilities support efficient language processing and contribute to linguistic competence. Similarly, psycholinguistic studies indicate that children's language production reflects complex mental operations rather than simple imitation or repetition. Surakat's developmental perspective also acknowledges that language acquisition is influenced by children's cognitive maturation. Thus, linguistic competence should be understood as a product of cognitive growth interacting with environmental experience.

Theme Three: Language Input and Social Interaction

Another dominant theme is the importance of language input and social interaction. Nearly all theories of child language development recognise that children acquire language through meaningful exposure to linguistic models provided by parents, caregivers, teachers, siblings, and peers. Surakat places considerable emphasis on the role of the linguistic environment in shaping children's acquisition of language. Rich and consistent language input facilitates vocabulary growth, grammatical development, and communicative competence. Conversely, limited language exposure may delay language development regardless of whether children engage in code-mixing. This theme suggests that the quality, frequency, and diversity of language input are more influential determinants of linguistic competence than the mere presence or absence of code-mixing.

Theme Four: Metalinguistic Awareness and Linguistic Competence

A fourth recurring theme is the development of metalinguistic awareness among bilingual children. Metalinguistic awareness refers to children's ability to reflect on language as a system, recognise differences between

languages, and manipulate linguistic structures according to communicative needs. Bialystok consistently argues that bilingualism strengthens metalinguistic awareness because bilingual children regularly compare and monitor two language systems. This heightened awareness enables them to recognise grammatical patterns, detect linguistic errors, and choose language forms appropriate to particular communicative situations. Genesee similarly maintains that bilingual children demonstrate sophisticated knowledge of language boundaries despite occasionally producing mixed-language utterances. These findings indicate that code-mixing often reflects linguistic awareness rather than linguistic confusion.

Theme Five: Multilingual Contexts and Child Language Development

The final recurring theme concerns the influence of multilingual environments on language development. Most reviewed studies acknowledge that bilingual language acquisition cannot be separated from the social and cultural contexts in which children live. Nigeria represents one of the world's most linguistically diverse societies, where English coexists with hundreds of indigenous languages. Children therefore acquire language within environments characterised by continuous movement between languages at home, school, and in the wider community.

Surakat's work is particularly valuable in this regard because it situates child language development within Nigeria's multilingual reality. Rather than applying monolingual assumptions to multilingual learners, his perspective recognises that children's language development reflects continuous interaction between cognitive development, environmental exposure, and sociocultural practices.

The reviewed literature therefore suggests that multilingual environments shape not only children's language choices but also the pace, pattern, and nature of linguistic competence. The foregoing thematic analysis demonstrates that although code-mixing remains an important feature of bilingual language use, the literature consistently points to broader psycholinguistic, cognitive, and environmental factors that influence child language development. These recurring themes provide the basis for a critical reassessment of the dominant code-mixing perspective and justify the need for a more integrated psycholinguistic framework.

Critical Synthesis and Psycholinguistic Reassessment

The scholarly trajectory of research on child language development and code-mixing reveals a significant movement from structural and descriptive interpretations of bilingual speech towards cognitively oriented explanations of bilingual language processing. Within the Nigerian multilingual context, Surakat's (2001, 2004, 2014) contributions remain important because they challenged the assumption that children's mixing of linguistic codes represents confusion, inadequate competence, or failure to acquire a target language. Surakat demonstrated that children's code-mixing is patterned, meaningful, and influenced by social context, communicative intentions, and the multilingual environments in which children develop. His work established an important foundation by positioning bilingual children's mixed utterances as legitimate manifestations of linguistic competence.

However, a critical reassessment of Surakat's position through contemporary psycholinguistic perspectives suggests that code-mixing requires explanation beyond its observable social and communicative functions. While Surakat successfully accounted for *when* and *why* children may alternate between languages in interactional contexts, subsequent psycholinguistic research has expanded the discussion by examining the cognitive mechanisms that make such alternation possible. The central question has therefore shifted from whether code-mixing occurs naturally in bilingual development to how bilingual children manage, represent, and control multiple linguistic systems during real-time language production.

A major contribution to this theoretical shift comes from the work of Bialystok (2017, 2021), who argues that bilingual language experience influences cognitive processes involved in attention, inhibition, and executive control. From this perspective, bilingual children are not passive recipients of two competing linguistic systems; rather, they actively regulate language activation according to communicative demands. This argument provides a significant extension of Surakat's earlier findings because it explains code-mixing as the outcome of cognitive flexibility and language management rather than merely environmental exposure. Similarly, Green and Abutalebi (2013, 2019), through the Adaptive Control Hypothesis, demonstrate that bilingual speakers develop control mechanisms that enable them to regulate competing language representations. Applied to child bilingual development, this framework suggests that code-mixing may reflect

developing proficiency in managing linguistic resources rather than incomplete separation of languages.

Furthermore, contemporary psycholinguistic research has challenged earlier assumptions that bilingual children experience confusion when exposed to mixed-language input. Although Surakat (2004) acknowledged the importance of multilingual exposure, recent investigations have provided more detailed accounts of how children process such input. Byers-Heinlein and Lew-Williams (2013) demonstrate that bilingual infants and young children are capable of distinguishing and processing multiple languages from early stages of development. Their findings indicate that exposure to more than one language does not overwhelm the developing language system; rather, bilingual children develop adaptive mechanisms for handling linguistic variability. This evidence reinforces Surakat's rejection of deficit perspectives while providing a stronger cognitive explanation for children's ability to navigate multilingual environments.

The role of language input represents another area where contemporary research has refined earlier explanations. Surakat's (2001, 2014) analyses highlighted the importance of social environment and interactional context in shaping children's language choices. However, Hoff (2018) argues that bilingual development is strongly influenced by the quantity, quality, and distribution of language exposure. According to this perspective, the presence of code-mixing alone is not a determining factor in children's linguistic outcomes. Rather, developmental progress depends on meaningful interaction, richness of vocabulary input, and opportunities for sustained communication in each language. Similarly, De Houwer (2021) emphasizes that family language practices and parental consistency play a crucial role in shaping bilingual competence. These findings extend Surakat's framework by demonstrating that the bilingual child's linguistic environment must be analysed not only in terms of language presence but also in terms of the quality of linguistic experience.

A further theoretical development concerns the understanding of code-mixing as a product of language experience and usage patterns. While earlier approaches often treated children's mixed utterances as evidence requiring explanation through grammatical development, usage-based scholars such as Tomasello (2018) and Lieven (2020) argue that children's language acquisition emerges from repeated social interaction, pattern recognition, and the gradual construction of linguistic knowledge. Within this framework, bilingual children's mixed

expressions may represent stored and frequently encountered constructions derived from their communicative experiences. This perspective complements Surakat's emphasis on social context but provides a stronger account of how repeated exposure becomes cognitively represented in the developing language system.

The communicative functions of code-mixing have also received renewed attention. Surakat's studies demonstrated that children employ mixed codes strategically within multilingual interactions. Recent work by Serratrice (2020) further develops this argument by showing that bilingual children possess pragmatic awareness and adjust their language choices according to interlocutors, conversational goals, and contextual expectations. Consequently, code-mixing should not be interpreted merely as lexical compensation or language interference; it represents a flexible communicative strategy associated with bilingual competence. This position challenges monolingual assumptions of language separation and supports a more dynamic view of bilingual development.

Despite these theoretical advances, contemporary psycholinguistic accounts also reveal limitations in earlier research traditions, including Surakat's work. Much early research on child code-mixing relied heavily on observational and descriptive approaches, which provided valuable insights into children's linguistic behaviour but offered limited access to underlying cognitive processes. Recent studies increasingly employ experimental methods, longitudinal designs, corpus analysis, and neurocognitive approaches to investigate bilingual processing. Scholars such as Genesee (2019) and Serratrice (2020) demonstrate that combining naturalistic observation with psycholinguistic experimentation produces a more comprehensive understanding of bilingual development by connecting children's linguistic behaviour with underlying mechanisms of memory, attention, and language control.

Nevertheless, significant gaps remain in the application of contemporary psycholinguistic theories to African multilingual contexts. Much of the current evidence reviewed by scholars such as Bialystok, De Houwer, Hoff, and Byers-Heinlein derives from European and North American bilingual populations. These studies have advanced understanding of bilingual cognition, but their assumptions may not fully capture the realities of African children who frequently acquire multiple languages within complex social environments involving indigenous languages, regional lingua francas, and colonial languages. Surakat's work therefore remains valuable because it draws attention to multilingual realities often overlooked in mainstream psycholinguistic

research. However, future studies must integrate African sociolinguistic contexts with contemporary cognitive models of bilingual processing.

In conclusion, a psycholinguistic reassessment of Surakat's (2001, 2004, 2014) contributions demonstrates that code-mixing should no longer be treated as the central explanation for bilingual child language development. Rather, it should be understood as an observable consequence of dynamic interactions among cognitive control, language input, social experience, pragmatic awareness, and linguistic representation. Surakat's foundational argument that children's mixed speech reflects competence rather than deficiency remains valid; however, contemporary psycholinguistic research provides a deeper explanation of the cognitive processes that enable such competence. Moving beyond code-mixing therefore requires an integrated framework that combines sociolinguistic insight with psycholinguistic evidence to explain how multilingual children develop, organise, and regulate their linguistic systems.

Discussion

For several decades, code-mixing has occupied a central position in studies of bilingual child language development, particularly in multilingual societies where children acquire two or more languages simultaneously. Earlier perspectives often interpreted code-mixing as evidence of incomplete linguistic competence or confusion between languages. However, developments in psycholinguistics have increasingly challenged this assumption, arguing that language development is a multidimensional cognitive and social process that extends far beyond the observable phenomenon of alternating between languages. This reassessment therefore contends that while code-mixing is an important characteristic of bilingual language use, it is better understood as one manifestation of underlying psycholinguistic processes rather than the principal determinant of child language development.

One limitation of code-mixing as an explanatory construct is its focus on language output rather than the cognitive mechanisms that generate linguistic behaviour. Children's language production reflects complex mental operations involving perception, memory, lexical retrieval, syntactic planning, attention, and executive control. These processes occur before any spoken utterance is produced. Consequently, analysing instances of code-mixing alone provides only a partial account

of children's linguistic competence because it overlooks the internal cognitive architecture that supports language acquisition and processing.

The works of Surakat (2001, 2004) provide an important foundation for understanding child language development within multilingual Nigerian contexts. Surakat argues that children's language acquisition is shaped by continuous interaction between cognitive maturation and the linguistic environment. Rather than viewing multilingual exposure as a source of confusion, his perspective recognizes that children actively construct linguistic knowledge from the language input available within their families, schools, and wider communities. This position suggests that language development should be examined through the quality and quantity of language experiences rather than through isolated observations of code-mixing.

Contemporary psycholinguistic scholarship further reinforces this position. Bialystok's research on bilingual cognition demonstrates that managing two linguistic systems enhances executive control, intentional regulation, and metalinguistic awareness. These cognitive abilities enable bilingual children to monitor language selection, inhibit interference from competing linguistic systems, and adapt their language use according to communicative demands. From this perspective, code-mixing is not evidence of linguistic weakness but may instead reflect children's flexible deployment of available linguistic resources during communication. The emphasis therefore shifts from identifying mixed-language utterances to understanding the cognitive competencies that make such language behaviour possible.

Similarly, Genesee's work on bilingual first language acquisition challenges the long-held assumption that bilingual children fail to differentiate their languages. He argues that bilingual children demonstrate early sensitivity to language-specific grammatical systems and that code-mixing frequently arises from pragmatic considerations, lexical accessibility, or contextual demands rather than from an inability to distinguish between languages. This interpretation is particularly relevant within multilingual African societies, where children regularly interact with speakers who themselves alternate between languages as a normal communicative practice. In such environments, code-mixing represents adaptation to authentic linguistic contexts rather than developmental deficiency.

Another limitation of existing literature lies in its insufficient attention to environmental variables. Child language development occurs within a complex ecological system comprising parents, siblings, peers,

caregivers, teachers, and the broader sociocultural environment. Variations in parental education, socioeconomic status, literacy practices, language attitudes, and opportunities for meaningful interaction significantly influence language growth. Children exposed to rich conversational environments generally develop stronger vocabulary, syntactic competence, and pragmatic skills irrespective of whether they occasionally engage in code-mixing. Conversely, limited linguistic stimulation may restrict language development even when children rarely mix languages. This suggests that language input and interactional quality are more fundamental determinants of linguistic competence than code-mixing itself.

The multilingual reality of Nigeria further necessitates a broader psycholinguistic perspective. Most Nigerian children acquire language within environments where indigenous languages coexist with English and, in some regions, additional local languages. Daily communication frequently involves movement across languages according to context, interlocutor, and communicative purpose. Under such circumstances, code-mixing reflects the sociolinguistic norms of the speech community rather than abnormal language development. Evaluating children's linguistic competence solely on the basis of language separation therefore risks imposing monolingual standards upon inherently multilingual learners.

Furthermore, linguistic competence extends beyond vocabulary or grammatical accuracy. It encompasses discourse organization, pragmatic appropriateness, communicative effectiveness, inferencing, language comprehension, and metalinguistic awareness. Children who successfully negotiate different linguistic contexts, adjust their language choices according to audience, and employ code-mixing strategically often display sophisticated communicative competence. Their ability to navigate multiple linguistic systems demonstrates linguistic adaptability rather than cognitive confusion. Consequently, psycholinguistic assessment should prioritise children's overall communicative effectiveness instead of measuring competence solely by adherence to monolingual language norms.

This reassessment also highlights an important conceptual gap within existing literature. Many discussions implicitly position code-mixing as either beneficial or detrimental to language development. Such binary interpretations oversimplify the complexity of bilingual acquisition. Code-mixing itself neither causes nor prevents linguistic competence; rather, it emerges from the interaction of cognitive processing, language

proficiency, communicative intent, environmental exposure, and sociocultural practices. Understanding these interactions provides a more comprehensive explanation of bilingual language development than attributing developmental outcomes to code-mixing alone.

Taken together, the reviewed literature supports a shift from a code-mixing-centred interpretation of bilingual child language development toward an integrated psycholinguistic framework. Such a framework recognizes the dynamic interaction among cognitive development, language input, executive control, metalinguistic awareness, social interaction, and multilingual experience. Within this model, code-mixing is reconceptualised as one observable outcome of these interacting processes rather than their primary cause. This perspective not only extends Surakat's insights into child language development but also aligns them with contemporary psycholinguistic theories advanced by Bialystok and Genesee.

Ultimately, moving beyond code-mixing encourages researchers to investigate the broader mechanisms through which bilingual children acquire, process, organise, and use language. Such a perspective is particularly valuable for multilingual societies like Nigeria, where language development reflects the interaction of cognitive, educational, cultural, and environmental influences. Future scholarship should therefore adopt multidimensional models that integrate these variables in order to produce a more accurate and contextually relevant understanding of child language development.

Conclusion

This study contributes to the body of knowledge in child language development and psycholinguistics in several important ways. First, it challenges the long-standing tendency to interpret code-mixing as the principal indicator of bilingual children's linguistic competence. By critically reviewing contemporary psycholinguistic literature, the article argues that code-mixing should be understood as a natural communicative strategy that reflects bilingual language use rather than linguistic confusion or developmental deficiency.

Second, the review advances an integrated psycholinguistic perspective by synthesising the complementary insights of Surakat (2001, 2004, 2014), Bialystok (2017), and Genesee (2019). While Surakat emphasises the role of linguistic environment and developmental processes within multilingual contexts, Bialystok highlights executive control and metalinguistic awareness, and Genesee demonstrates that

bilingual children differentiate their languages from an early age. Bringing these perspectives together provides a more comprehensive framework for explaining child language development than treating them in isolation.

Third, the study broadens the analytical focus from observable language behaviour to the underlying cognitive and environmental processes that shape language acquisition. It identifies executive control, working memory, language input, metalinguistic awareness, social interaction, and communicative context as interconnected variables that collectively influence children's linguistic competence.

Fourth, the review offers a context-sensitive interpretation of bilingual child language development by relating international psycholinguistic theories to the multilingual realities of Nigeria. It demonstrates that language practices such as code-mixing should be interpreted within their sociolinguistic context rather than evaluated against monolingual norms. This contributes to a more culturally relevant understanding of language development in multilingual African settings.

Finally, the study proposes an integrated conceptual framework in which code-mixing is viewed as an outcome of interacting cognitive, linguistic, and environmental processes rather than the primary determinant of language development. This framework provides a theoretical foundation for future research and encourages scholars to adopt multidimensional approaches to investigating bilingual child language acquisition.

Overall, the contributes by shifting scholarly attention from a narrow focus on code-mixing to a broader psycholinguistic understanding of how bilingual children acquire, process, and use language in multilingual environments. Moving beyond the outdated view that code-mixing represents language confusion allows us to see child bilingual development for what it truly is: a brilliant display of cognitive efficiency and mental flexibility. As established by the foundational longitudinal research of Surakat (2001, 2004, 2014) and contemporary Nigerian scholars, bilingual children do not possess a single, chaotic language system. Instead, they operate two distinct yet beautifully interconnected linguistic networks from their earliest developmental milestones.

When a child mixes languages, whether blending English with Yoruba, Igbo, Hausa, or Nigerian Pidgin they are not making errors. They are actively optimizing their mental resources, saving cognitive energy, and using their full vocabulary pool to keep conversations

moving fluidly. This natural process shows a highly developed brain that can rapidly adapt to different conversational partners and social settings.

For educators, policymakers, and speech clinicians in highly multilingual societies like Nigeria, the message is clear. We must abandon strict, monolingual-centric biases that punish or pathologize language mixing. Instead, we must embrace code-mixing as a sign of high-level communicative competence and cognitive strength. By recognizing code-mixing as a valid, rule-governed asset, we can design better school curriculums, avoid misdiagnosing healthy bilingual children, and finally appreciate the true depth and sophistication of the multilingual mind.

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