

Beyond Semantics: The Role of Parental Home Language in the Socio-Cognitive Development of Left-Behind Children in Rural China

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Abstract. China's rapid urbanization has presented society with an unprecedented demographic issue known as the "left-behind children" (LBC). Regarding the 60 million minors left in rural areas while their parents moved away to find employment, current research only studies economic remittances or general forms of psychological pathology. However, there has been little research conducted regarding how language specifically serves as a developmental tool. This review of literature examines how a migrant parental home language (PHL)—which encompasses a unique set of language varieties, communication styles, and degrees of communicative quality—affects LBC from four different perspectives—linguistic basis, cognitive capability, emotional attachment, and social integration. The analysis indicates that PHL serves as an important support structure for developing early vocabulary and also acts as a "safety net" for managing feelings. For example, children whose parents interact with them using PHL often have a higher degree of cognitive flexibility and social identity development than those children who are not given such interaction. Where children receive little or no exposure to PHL, they may experience linguistic decline and emotional detachment. It is the position of this paper that maintaining the PHL is vital to addressing the developmental gap for the LBC, and that a "Dual-Language Strategy" can assist families in managing their language.

Keywords: Left-behind Children; Parental Home Language; Remote Parenting; Socio-cognitive Development; Dual-Language Strategy.

1. Introduction

Within China, labor migration between regions has emerged as a prominent characteristic of contemporary life; this phenomenon has raised awareness about an ever-increasing number of children left behind by their migrant worker parents, known as "left-behind children" (LBC). The dominant narrative regarding LBC emphasizes the negative outcomes associated with separation from their parents; these include lower academic achievement, higher levels of anxiety, and inadequate material support [1-3]. The deficit model, however, overlooks how families continue to interact with one another while separated from each other by distance; these ongoing interactions constitute a supportive network that helps to build and maintain familial relationships. In addition to these ongoing interactions, remote-parenting practices have become increasingly common as a result of mobile technology becoming widely adopted within rural China. Although the prevalence of remote parenting is increasing, it is still unclear what types of remote interactions contribute most positively to maintaining successful families.

Many prior studies treat parental contact simply as a binary (contact/no contact) and have not looked at the type of contact and how language is transmitted through the contact. LBC have a unique 'linguistic environment' because they are being raised by their grandparents, who speak predominantly local dialects, have limited vocabulary, and use traditional learning models, while their migrant parents may have picked up formalized Mandarin and modernized ways of communicating in cities. The result is a complicated and conflicting linguistic ecology between the LBC and the parent. This study believes that 'Parental Home Language' (PHL) is not simply the dialect or Mandarin that the parent speaks to the child, but rather it is the primary mode of language used by the parent to communicate, create, and maintain a connection with the child. Although telecommunications may

provide a route of language input, the quality of the language input can vary depending on parental awareness of the input received by the child.

The review serves to fill a research void that has yet to be filled regarding the impact of using PHL on children, as it focuses on the different aspects—in addition to simply comparing Dialect and Mandarin in a binary sense, as previous research does—of how parents interact with their children regarding language development, and how this interaction contributes to (or potentially hinders) the growing process of the child. As such, from a language acquisition, cognitive development, emotional strength, and overall socialization standpoint, the review of studies provides a comprehensive view of how PHL acts as a protection against the negative effects of separation.

2. Methodology

This study uses a narrative literature review technique to integrate and interpret all relevant theoretical and empirical documents that are available. Using a narrative literature review methodology provides flexibility to combine various types of data, including qualitative and quantitative survey data, qualitative interview data, and observational data, in order to form a complete depiction of the LBC experience. A variety of academic databases, including CNKI (China National Knowledge Infrastructure), Web of Science, and Google Scholar, were used to gather studies for inclusion in the narrative literature review.

The literature review used search parameters of the last ten years (2014 to 2024) and the keywords of "Left-Behind Children," "Language Development," "Parent to Child Interaction," "Language Policy in the Family," and "Long Distance Parenting." To guarantee ecological validity, studies were chosen based on whether they had longitudinal data on LBC in rural China. Results of developmental psychology, particularly Vygotskian theory, are used to identify recurring patterns and causal mechanisms across various samples as one means of analyzing empirical evidence.

More specifically, one of the focuses of this review is to disentangle the effect of "Language Input" from the overall effects of "Parental Care" and therefore elucidate the way linguistic mechanisms function even when there is physical separation. In order to improve ecological validity, studies with appropriate sample sizes (i.e., large numbers of participants) and diverse geographic representation were prioritized. Synthesized study findings reflect a broad geographic area, covering all of the economic zones of China, so as to limit regional bias in the studies included in this review. For example, previous quantitative research has utilized large samples from rural provinces to analyze labor migration trends [4]. Another study focused on central China, specifically analyzing a sample of students from Hukou County, Jiangxi Province [5]. Case study evidence collected from rural kindergartens provides a unique opportunity to compare regional developmental patterns [6].

Geographic triangulation allows us to separate out developmental patterns that are universal (e.g., the "Input Quality Gap") from those that are economic-region specific and the result of economic differences. The studies selected also represent the entire developmental continuum from the 0-6 sensitive period to primary school and provide an overall view of the deficit evolution process.

3. The Impact of PHL on Language Development

3.1. PHL as the Foundation of Acquisition: The Input Quality Gap

As a child's critical period for developing language skills occurs, the main source of input for a child is parental language. From an interactionist perspective, the degree of stop and start, variety, and feedback in a young child's linguistic exposure will determine the maximum limit of the child's verbal ability [7]. Research has found that parents who consistently interact with their children create the perceptual framework for how phonetics and grammar are perceived.

There is, however, a significant "Input Quality Gap" between parents and grandparents who care for the children. This occurs because migrant parents frequently leave their children (LBC) with their own parents (the grandparents), who often have a lower level of education than the migrants and may

have different cultural and communication norms than their children. As a result, these caregivers typically use the "Restricted Code" described by Bernstein as language that depends on the context of interaction, is simple in structure (syntactically), and has a limited vocabulary. Restricted codes most often emphasize the immediate survival needs of the children being cared for. Contrary to the preceding category, migrant parents generally employ an "Elaborated Code" of language (which is more explicit, complex, and focuses on the future, etc.).

Given the restricted parental input to LBC, grandparents are typically limited to using "survival language" with their grandchildren (e.g., "Eat your dinner, go to bed, don't run"). Research suggests that LBC with insufficient PHL input, may experience significant deficiencies in listening and speaking standards compared to their peers [3]. Since grandparents only have the ability to communicate using a limited vocabulary and basic structure, the lack of adequate PHL input limits their grandchildren's access to the full range of complexities of language.

3.2. Interaction Quality: The Role of Digital Mediation

PHL communication frequency has far less significance than the quality and mediums of communication. Despite recent developments in communication technologies used between parents and children (e.g., the shift from landline telephones to smart telephones), there are ongoing communication obstacles between parents and children involved in migrant labor [8]. Findings from empirical models show that while duration of remote communication was important, the content provided had a larger effect [5].

This means that most migrant parents communicate with their children using repetitive, content-free phrases (referred to as Phatic Communion) (e.g., "Did you eat?" or "Be careful"). Although the intention behind such communications is commendable, these repetitive exchanges do not encourage language development in migrant children, and many children grow disinterested in these communications, leading to 'digital resistance' to their parents' calls. In contrast, "Elaborative Reminiscing" is one way parents use PHL platforms to build and support the narrative abilities of their children.

Findings show that when a parent uses PHL to ask their child to describe past experiences with as much detail as possible (e.g., "What did you find interesting that happened in school today?"), their child's narrative logicity improves. A highly illustrative example is presented in a case study regarding parent-child interaction [9]. In this case study, an LBC participated in a weekly 'story continuation' activity with both parents over PHL. During this assignment, the child was asked to describe a rice field. As an example, the child used bold and vivid metaphors, comparing the wind blowing through the rice stalks to "grandpa's beard." In contrast, the peers who did not have high-quality PHL experience to build upon could only think of using a simple list of descriptors. Therefore, PHL serves as a type of remote educational experience for creating complex language expressions and developing metaphorical thought. Further backing this claim is data showing that children receiving high-quality PHL experiences were significantly more likely than children who did not receive them to express themselves in school [9]. The medium in this context is also very important, as video calls enable parents to use body language and facial expressions to help support their vocabulary development, thus providing a more robust learning environment as compared to traditional voice-only calls.

3.3. Balancing Dialect and Standardization: The Role of Code-Switching

PHL has a dual nature: "dialect inheritance" and "Mandarin adaptation." LBC who reside in rural areas are often over-reliant on the use of local dialects because they lack active parenting in terms of dialect usage. Scholars have described the phenomenon where reliance on local dialects can result in phonetic interference with Standard Mandarin [10]. Therefore, managing PHL through the active engagement of parents is more effective than opposing Mandarin.

Parents who are more educated tend to model what is termed "Code Switching": using dialect for emotional intimacy and Mandarin for academic purposes. It has been observed that when parents

serve as "remote language teachers" by correcting their children's pronunciation during video conferencing, children's bilingual flexibility increases by approximately 30% [5]. PHL provides children with a normative guide. Children who learn how to use both varieties possess a repertoire of language that allows them to function within both their village communities and formal education systems, thereby eliminating the possibility of "double marginalization" associated with not being able to speak either Mandarin in cities or dialect in villages.

4. The Impact of PHL on Cognitive Capabilities

4.1. Cognitive Scaffolding and Abstract Concept Formation

Language drives cognition. Drawing on Vygotsky's Zone of Proximal Development (ZPD), language allows adults to "scaffold" a child's understanding of the world [5]. PHL provides targeted information transmission for LBC that grandparents, due to educational limits, often cannot provide. When parents explain natural phenomena via phone using familiar language (e.g., explaining why it rains), children grasp abstract causal relationships faster than those relying solely on fragmented guardian explanations.

PHL frequently employs unique "family cognitive symbols" to bridge abstract concepts. One literature example cites a parent teaching mathematics through a rural context: "One chick has one head and two feet; three chicks have three heads and six feet." "Contextualized Learning" helped the child grasp abstract correspondence and multiplication more effectively than rote memorization. Later encountering formal mathematics, these children retrieved PHL-mediated cognitive schemas to accelerate understanding. PHL thus acts as a cognitive bridge, translating academic concepts into the vernacular of daily life and converting "school knowledge" into "living knowledge."

4.2. Enhancing Logical Thinking through Dialogic Inquiry

Deep PHL interaction stimulates higher-order thinking skills, specifically critical analysis and logic. Research emphasizes "Problem-Solving Discussions" [5]. Asking "How can we fix this broken toy?" instead of buying a new one forces the child to hypothesize, plan, and evaluate. LBC exposed to open-ended questions scored higher in logic tests compared to peers receiving only imperative instructions from grandparents.

Narrative interactions play a crucial role. Studies have documented parents telling stories (e.g., "The Tortoise and the Hare") and asking analytical questions like, "Why did the hare lose?" or "What would you do differently?" [3]. This "Dialogic Reading" strategy encourages LBC to move beyond passive information reception to active critical analysis. Children conditioned by this PHL learn to consider motives, strategies, and consequences. Conversely, children subjected to authoritative, one-way PHL (e.g., "Do as I say") tend to develop a passive thinking mode, waiting for external instructions. Cognitive passivity directly results from "linguistic deprivation" at home.

5. The Impact of PHL on Emotional Bonding

5.1. PHL as an Emotional Anchor and Attachment Mechanism

Amid physical separation, PHL acts as an exclusive "Emotional Code." Attachment Theory posits that the parent's voice serves as a "secure base" for the child's exploration. Studies have found a strong positive correlation between PHL use frequency and parent-child intimacy [9]. LBC communicating deeply in PHL more than three times a week report significantly higher levels of perceived care. This mechanism likely stems from "Acoustic Familiarity" and "Ritualization." Parental intonation, vocabulary, and dialect trigger emotional memories in the child's brain.

Regular communication builds a "Ritual of Connection" that stabilizes the child's life. A child may feel immediate comfort hearing a parent ask, "Is the baby good today?" in their specific family dialect. Research indicates that emotional stability and routine, such as listening to recorded stories, can

improve children's well-being [1]. The "Presence Effect" associated with this type of communication offers a level of emotional security that cannot be duplicated through the use of standardized forms of communication. Conversely, by using rigid Mandarin as a form of "education," many parents may have unintentionally created the risk of emotional detachment and decreased attachment between parents and children.

5.2. Emotional Regulation and the "Safe Channel"

PHL serves as a medium where people can let go of their emotions or help themselves return to their balanced state emotionally. It is often observed that LBC tend to share their challenging emotions using their native language or dialect [11]. In terms of revealing emotions, Standard Mandarin may be too formal, since this dialect represents discipline. For example, a child may say to his mother in his dialect, "I felt sour-hearted when they made fun of me for not having a new school bag." The use of the phrase "sour-hearted" implies that the child was expressing shame and sadness in a way he had difficulty expressing in Standard Mandarin.

Once the child's mother has that understanding, she can offer him more tailored comfort, "I used to have an old bag too... I worked hard to get a new one." Because of this understanding of how to express, understand, and support one another, PHL will continue to provide the closed-loop "Expression-Understanding-Feedback" loop. Without this connection, a significant portion of LBC may be unable to articulate their emotional distress [12]. Many of these children have expressed a desire to share but have stated they do not know how to do so, and this has contributed to a greater likelihood of them developing anxiety and depression.

6. The Impact of PHL on Socialization

6.1. Social Interaction and Communicative Competence

Using local dialects equips children with the skills they need to communicate effectively and survive socially in their rural communities. The ability to speak the dialects of one's parents gives children an advantage in interacting with their peers. Evidence suggests that children who speak their parents' dialects have a greater chance of being accepted socially in village communities [13]. Play helps demonstrate this acceptance by showing how children interact with others. Traditional group games like "rubber band skipping" rely on chanting rhymes in the local dialect. Children mastering these dialect codes via PHL synchronize with peers instantly. Loss of dialect fluency, due to exclusive Mandarin emphasis, leaves children marginalized or "out of sync." Balance is essential.

Parents guiding children in Mandarin also prepare them for interactions with teachers and urban peers. Findings show that LBC with this dual competence showed higher "Social Initiative" and reduced social withdrawal in school [9].

6.2. Cultural Identity and Long-term Adaptation

Cultural identity and family heritage in PHL are carried by folklore, proverbs, and family history. Through these means, LBC achieve a feeling of rootedness or enjoyment of belonging to a specific cultural background. Research reports that frequent exposure to hometown or native culture through PHL results in a greater likelihood of having pride in one's hometown [10]. In addition, the values associated with linguistic markers, or specific cultural labeling that describe the significance of the person using the marker, are transmitted through the stories that parents tell.

For instance, some parents will tell stories of their family's resilience in the past using idioms from their dialect, such as "Grandfather built the reservoir." Children who hear these stories learn to view this as a positive cultural value. For example, one student stated: "Mom told me in our dialect that we don't fear hardship." This cultural foundation allows children to develop an identity that will help them adapt to society over time. By learning to move between "Rural Culture" (via dialect) and "Urban Culture" (via Mandarin), children develop what has been termed "Bicultural Competence,"

giving them greater ability to adjust to future migration. Children become able to code switch not only in language, but also in culture.

7. Discussion

This review concludes that PHL is more than just a way to share information; PHL has become a fundamental component of the ecological environment in which LBC are raised. PHL can also be viewed as an extension of Bronfenbrenner's ecological systems model [14], whereby the microsystem has continued to be the primary influence on LBC behaviors via technology use.

7.1. Comparative Perspectives: LBC vs. Immigrant Children

Examining the LBC phenomenon within the framework of global development of children is a valuable exercise. Hart and Risley [7] established that the quantity of early language input determines the cognitive trajectory for children; however, the LBC context presents a unique set of structural challenges. Unlike international immigrant children who experience a complete break in language (i.e., Inter-lingual), LBC navigate a continuum of local dialects and Mandarin (i.e., Intra-lingual). Research on immigrant populations has mainly focused on the extent of assimilation to the culture of the country of settlement. With LBC, PHL is not so much a cultural bridge as it is a compensatory mechanism for the physical absence of parents. The "linguistic void" discussed here is not merely a language barrier; it is the way in which parental "Elaborated Code" is replaced by grandparental "Restricted Code."

Although the mechanisms of language influence appear to be common worldwide, LBC interventions must specifically address the "Distance Gap" rather than merely the "Cultural Gap." A paradox of distance is created; while physical absence of the parent poses risks, good management of a high-quality PHL can alleviate many of the risks associated with physical absence. The nature of communication (i.e., two-way communication, elaborative, and emotionally responsive) is always more important than just being present. A parent who is physically present but not engaged in communicative exchange with their child (e.g., distracted by their phone) has less positive effects than does a migrant parent engaged in "High-Investment Remote Parenting."

This paper highlights that a "Dual-Language Strategy" or "Additive Bilingualism" is critical for the success of the child. The pressure on rural families to give up their dialects and rely solely on Mandarin to achieve social mobility is unfounded. Dialects provide emotional security, identity, and local integration for children; parental guidance in Mandarin will help to facilitate educational success. If parents rely entirely on one language or the other, the result will be failure to meet the holistic needs of the child.

7.2. Implications for Intervention: From Theory to Practice

To provide actionable interventions, the strategy referred to as "Dual-Language Strategy" must be put into practice. First, regarding the infrastructure: Schools located in labor-exporting regions should develop "Parent-Child Communication Stations" that include telecommunications equipment (such as video conferencing) and resources for supporting "emotional communication in dialects." These stations would support high-quality digital mediation for areas where children do not have access to personal digital devices.

Second, regarding digital resources: Social groups could create "Dialect Recording Projects" to encourage migrant parents to record their family's bedtime stories or family histories. By creating a collection of recorded stories, children can access "emotional anchors" from their home and community, even when the work schedule of the parent prohibits them from communicating in real time with the child.

Third, regarding the curriculum: Schools should incorporate local dialect nursery rhymes and proverbs in Music and Moral Education programs in a respectful manner. Incorporating these items

into the curriculum helps to validate the culture of the family and reduces the fear of being "linguistically ashamed."

And finally, regarding families: Differentiate strategies for children by age; priority should be given to exposing children to their local dialect from toddler age in order to develop auditory perceptions, while providing guidance for older children who are in school on how to improve their ability to translate between their local dialect and Mandarin in order to promote cognitive flexibility.

8. Conclusion

This paper shows that PHL plays a crucial role in preparing the child to develop as a fully functioning individual. PHL creates a base for the child's language development, supports the child's cognitive abilities, establishes a sense of safety for the child, and helps the child develop social skills. The developmental deficits in LBC are not solely due to separation from the parents, but rather also result from the poor quality and limited type of interaction parents have with their children. Parents need to communicate with their LBC in a content-rich manner instead of engaging in simple and brief check-ins. Schools and other organizations need to assist in this area by acknowledging that local dialects are valuable assets for the emotional development of LBC while teaching them Standard Mandarin, rather than viewing them as in competition with one another. Future studies to validate these results should include longitudinal studies assessing whether remote training of parents in Dialogic Reading would close the developmental gap experienced by LBC. Bridging the language gap offers a significant opportunity to improve the quality of life for this at-risk population in a reasonable and effective manner.

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