

### THE CRITICAL PERIOD HYPOTHESIS IN LANGUAGE LEARNING

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**ABSTRACT**: According to the Critical Period Hypothesis (CPH), language acquisition is most successful within a physiologically defined window of time. It is thought that this phase ends around adolescence, at which point learning a language becomes much more challenging and time-consuming. Since its initial formulation by Eric Lenneberg in 1967, the hypothesis has served as a fundamental component of research on language acquisition and psycholinguistics. There is conflicting but generally positive evidence from a large number of research concerning first and second language acquisition. For example, younger second-language learners generally attain higher skill levels than adults, while children who are denied language input early in life frequently fail to properly acquire language later. Recent research using neuroimaging has also suggested age-related differences in brain plasticity associated with language learning. This article explores both classical and contemporary research on the topic, discusses counterarguments, and evaluates implications for language education. The findings indicate that while age is a significant factor, other variables—such as motivation, exposure, and context—also play a crucial role in language acquisition success.

**KEYWORDS**: Critical period, language acquisition, second language, brain plasticity, age effects, Lenneberg, psycholinguistics, bilingualism.

#### **INTRODUCTION**

Linguists, psychologists, and educators have all long been interested in the process of language acquisition. The Critical Period Hypothesis (CPH), one of the most hotly contested ideas in this area, postulates that the brain is particularly responsive to language acquisition during a particular period of human development.



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The ability to learn a language with native-like competency drastically decreases after puberty, which is thought to occur between early infancy and puberty (Lenneberg, 1967). Evidence from neuroscience and development supports this theory. The brain's high degree of flexibility during childhood enables it to better process and adjust to language input. This plasticity diminishes with age, making language acquisition more challenging. This theory is supported by numerous case studies. For instance, studies on children who experienced social isolation and lack of language exposure in their early years (such as Genie, a socially isolated toddler) reveal that even with intense training, these children had difficulty learning grammatical structures later in life.

Additionally, second language acquisition studies provide further evidence. Children who begin learning a second language before the age of 7 often develop native-like fluency, whereas adults rarely reach such levels. However, it is important to note that the CPH is not universally accepted without critique. Some researchers argue that success in language learning is not solely dependent on age but also influenced by factors such as motivation, learning environment, and exposure. This article aims to examine key findings from both classical and modern studies, evaluate the scientific merit of the hypothesis, and discuss its implications for language education policies and teaching methodologies.

#### RESULTS AND DISCUSSION

Studies on the Critical Period Hypothesis have shown a variety of results that both confirm and refute the hypothesis. Eric Lenneberg first proposed this theory in 1967 after noticing that children who had brain injuries prior to puberty frequently recovered their language skills more completely than those who had injuries after puberty. This established the foundation for the idea that age-related biological limitations affect language acquisition. Subsequent research has provided robust evidence for age-related effects, particularly in pronunciation and grammar. Johnson and Newport's (1989) seminal study on Korean and Chinese immigrants to the United States found that age of arrival was a strong predictor of English proficiency. Those who arrived before age seven performed similarly to native speakers, while performance declined with increasing age of arrival. Neuroscientific studies further



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support the CPH. Functional MRI scans show that early bilinguals activate both languages in overlapping regions of the brain, whereas late bilinguals often engage distinct neural areas, suggesting differences in how the brain processes language based on age of acquisition. This aligns with the notion that brain plasticity diminishes with age, limiting the capacity for native-like learning after puberty.

There are some notable outliers, though. High competency levels have been attained by certain adult learners, particularly in immersion settings or with strong motivation. The significance of understandable input as people age is emphasized by Krashen's (1982) input theory. Furthermore, according to Birdsong (1999), in certain situations, individual characteristics including working memory, ability, and affective factors might outweigh the impact of age. These mixed findings suggest that while there is strong support for a critical period, especially regarding pronunciation and syntax, the hypothesis may not fully account for the complexities of language learning. It is more accurate to describe age as a significant but not exclusive factor. Therefore, modern interpretations often refer to a "sensitive period" rather than a rigid "critical" period, allowing for variability in language learning success across the lifespan.

#### **CONCLUSION**

The critical period hypothesis is still a key idea in the study of language acquisition, especially when comparing how easy it is for toddlers and adults to learn a language. Numerous study findings from studies in neurology, psychology, and second languages support the idea. All of these show that language learning is more successful and natural in the early phases of development, particularly prior to puberty. However, a growing body of evidence indicates that language learning does not become impossible after this period—it becomes more challenging and may require different learning strategies. Factors such as motivation, learning environment, language input, and cognitive differences play crucial roles in determining the success of language learning in adults. While the biological foundation of the hypothesis is compelling, educators and policymakers must adopt a more flexible interpretation. Emphasizing early language exposure remains beneficial, but adult learners should not be discouraged. With appropriate support, they can achieve high levels of fluency.

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Ultimately, a comprehensive understanding of the Critical Period Hypothesis allows for better-informed decisions in both educational planning and second language instruction.

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