

Contradictions of Critical Period and Early Language Exposure: A Review

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Abstract

Research indicates that there is a critical period for language acquisition, which ends around puberty. The critical period hypothesis states that the first few years of life institute the time during which language develops and after which language acquisition is much more challenging. The existence of this critical period is explained by an evolutionary model which assumes that linguistic ability is computable and extent of language controlled by an individual discusses it a selective advantage. Linguistic and educational communities in language development have since long thought that age is sensitive for language learning outcome. The primary question arises whether onset and type of language experienced during early life affect the ability to learn a language is still unidentified. The current research paper highlights four aspects (a) Latitude of the critical period hypothesis (b) Is there a critical period or a sensitive period for learning a second language? (c) If there is a sensitive period, is this a single critical period applicable for all aspects of second language acquisition? (d) To conclude, what are the suggestions of these theories for second language teaching? The idea of multiple critical periods polish and refine the critical period hypothesis in some specific respects instead of negating the theory in its entirety, because language is not a unitary phenomenon.

Introduction

The critical period hypothesis is the focus question of a long-standing debate in psycholinguistics subject area that the degree to which the ability to acquire language is biologically associated with age. The critical period hypothesis for language acquisition suggests and recommends that the outcome of language acquisition is not uniform over the lifespan but

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rather is best during early childhood years. The critical period hypothesis was initiated for spoken language but recent research has shown that it applies equally to sign language. Neurosciences are cracking new light on the neural basis of second language processing, and on its relationship to native language processing or first language.

The assumption that first language and second language are necessarily represented in different brain areas in bilinguals

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***Sign Language Interpreter, AYJNISHD (D) Mumbai has not been confirmed. The neurosciences specify that evidence indicates that first language and second language are processed by the same neural devices.

Need for the Study

The neural differences in the first language and second language representations are only related to specific computational demands, which vary according to the age of acquisition, the degree of mastery level and level of exposure in terms of each language. Finally, acquisition of the second language which could be considered as an active process, requiring surplus neural resources in specific circumstances. This paper attempts to study evidence of critical period hypothesis for second language acquisition.

Research Questions

Research questions posed throughout this research paper highlights and analyses from four aspects (a) latitude of the critical period hypothesis (b) is there a critical period or a sensitive period for learning a second language?

(c) if there is a sensitive period, is this a single critical period applicable for all aspects of second language acquisition? (d) to conclude, what are the suggestions of these theories for second language teaching?

Review of Related Literature

The biological foundations of Language proposed by many researchers elaborated this area by gathering a various evidence from studies of brain growth and clinical studies of cases of brain damage deafness to support the hypothesis that there are age constraints on language acquisition caused by brain maturation. Flege (1987) in his research assumes that there appears well-defined developmental condition which is applicable for human language acquisition. For the question of is it applicable to second language learners too?

The work by Lenneberg (1967) examines that between the age of two and three years the language emerges by an interface of maturation and self-programmed learning.

According to Lenneberg at the age three and early teens, the possibility for primary language acquisition constitutes to be worthy with regard to the components of language. The focus is on that the individual appears to be most sensitive to stimuli at this period for the association between brain functions and acquisition of speech and language.

Researcher Long (1990) reviewed the study of Johnson and Newport with regard to second language acquisition research on the basis of age associated differences. The researchers focus on (a) the initial and the ultimate level of attainment and acquisition depends on the age at which language learning begins. (b) There are sensitive periods or plasticity levels governing both for first and second language development.

Bialystok and Hakuta (1994) recognized that the two areas of learners firstly those younger than 15 and secondly those older than 15 into one group. Bialystok (1997) asserts that language noticeably declines at around the age of 20. However some researchers have highlighting the point wherein at puberty, or a pre-puberty there is decline in language acquisition. Hence there appears to be difference is research findings of different researchers.

Methodology

The current research is a descriptive research and a qualitative one wherein articles and researches written by Lenneberg (1967), Bavelier & Neville (2001), Biaystok (1997), Johnson and Newport (1989), Long (1990) and many other related types of research, are reviewed in terms of critical period and second language acquisition and commented upon in this research paper.

Analysis and Discussions

Given the above reviews in a critical period, we could say these results provide equitably strong evidence for a critical period or sensitive period for a second language acquisition, at least in the acquisition of different components of language. The following reviews done of the work by different researchers are used in an attempt to answer the questions posed at the beginning of this research paper.

A] Latitude of critical period hypothesis

1] Lenneberg theory of critical period ranges from two years of age to about 14 years, whereas other researchers have drawn the limit at 2, 15, 16 or 18 years of age. Unlike researcher Lenneberg, most researchers today do not state the starting age for the critical period for language learning.

2] Some indistinctness remains as to the setting that is relevant to the subject focus. Does the critical period constraint implicit learning processes only or does it also apply to instructed learning? Review of literature indicated that most researchers agree to the former.

3] Majority of the researchers as observed by the review of literature agree that sensitive period is most likely to constrain the acquisition of syntax area as well as the other components or structure of language even for lexis.

B] Is there a critical period for learning the second language?

The related findings or the review in the area of the critical period seem to tremendously state that there is indeed a critical period or elasticity level of the brain by which learning should commence in order to meet the learners chance to achieve instinctive-like competences.

According to the researcher Bialystok (1994), late learners of a second language acquisition have used their native language or instinctive language significantly longer than early learners, and therefore do show a high competency and proficiency in that particular language. That is to say, that that interference between first and second language factors affects second language acquisition in adults. If interference between two languages is the cause, why there are instances wherein children also have same proficiency level for native-language as well as a second language?

C] Is this a single critical period for all aspects of second language acquisition?

There is much disagreement in the literature review about the accurate onset of a decline in the ability to learn a language. Researcher Patkowsky (2005) argues that at age fifteen years for morphology and syntax to develop, while the other researchers namely Johnson and Newport (1989) claim that at the age of six years phonology development starts.

Other researchers, like Bialystok (1997), hold that demarcation begins at the age of twenty. As there are many controversial ideas among researchers on this point of acquiring different components of language, it is difficult to assert an exact timeline on the life span of an individual when decline commences.

The results of researchers namely Flege, Yeni-Knomshian, and Liu (1999); Scovel, (1998); Long, (1990). According to Newport, Bavelier & Neville (2001) indeed suggested multiple critical periods for different aspects of language. At present, it is not clear whether conflicting critical period effects always suggest that distinct subsystems within a language system exist due to multiple critical periods, or that effects differ simply due to the difficulty of one structure over another.

Future researchers in the field of psycholinguistics will need to consider how to distinguish a contrast across subsystems, displaying different developmental timetables and types of plasticity, from effects of stimulus strength and complexity (Newport, Bavelier & Neville, 2001).

D] What are the Inferences of the Theories for Second Language Teaching?

According to the above reviews, in the area of the critical period or sensitive period effect is only in its infancy, especially in second language acquisition. It is clear that variability exists as to how early experience may affect brain organization. This variability may occur both within and between systems. For example, different windows open at different times for learners; we also term this as learning windows. Recent advances in brain research highlight and also focuses on the great insight into how the brain, the most immature of all organs during and at birth, continues to grow and develop after birth. It is this "plasticity" or "neuroplasticity" of the brain, its ability to develop and change in response to the demands of the environment in terms of language acquisition.

Researchers specify that the children need to learn a second language before their critical period in order to acquire a natural and spontaneous language, we are also aware that some children fail to acquire a native-like a language skill under the influence of their first language acquisition. Language teachers or we as special educators in the field of deaf education should also make every effort to arrange the most effective learning environment having language opportunities which permit the children to activate their fully developed cognitive skills in both natural or home environment and classroom settings. As we know that there is a linkage between deafness, language, and cognition. Thus, language teachers as well as special educators, especially working in the field of, 'deaf education', need to know learners' developmental process in all the domains highlighting the cognitive and language domain so as to know when it is and is not appropriate to focus on teaching specific systems. Research still needs to clarify the timing of windows of opportunity for certain systems and should be made available to language educators and learners.

Conclusions

The suitable and appropriate age for introducing a second language to children has been one of the few continuing concerns in the field of second language acquisition. A number of studies have been intended to investigate the question of optimal age or critical age to learn a second language. Age has often been considered a central factor in the field of second language acquisition.

This research provides a comprehensive review of the literature available on aspects related to the role of age in second language acquisition and further discusses the hypotheses and theories relating to second language learning. By reviewing the various researchers about the critical period for language acquisition, the available literature and discusses unanswered concerns posed, it may avail to infer that a critical period for second language learning does exist. It should be noted that some of the recent researches show that there are different critical periods for different aspects of the acquisition of language, rather than a single period for all dimensions of second language acquisition. The idea of multiple critical periods upgrade critical period hypothesis in some specific respects instead of negating the theory in its entirety because language is not a unitary phenomenon and does not support the notion of a single critical period for all aspects of language. Future research should highlight on critical periods hypothesis rather than critical period hypothesis.

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