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The Influence of Critical Period Hypothesis on the Second Language Acquisition

Yanyan Liu[1,a,*]

[1]University of Birmingham, Edgbaston, Birmingham, B15, 2TT, United Kingdom
a. YXL1567@student.bham.ac.uk
**corresponding author*

Abstract: Critical Period Hypothesis is an important theory to reveal the relationship between age and second language acquisition. This theory plays a vitally important role in studying the impact of different ages on learning a second language. Based on this theory, this article focuses on the different viewpoints of the proponents and opponents of it. The conclusion is that, though, age plays a great role in language learning, branches of foreign language learning, such as accuracy of pronunciation and grammar, the acquisition of language is still affected by other factors, such as professional training, attitude, and cognitive ability in a foreign language. Therefore, it inspires or improves teaching methods in foreign language learning, which let children make full use of the advantage of early learning and make adults study willingly and attach importance to language output and input.It is suggested that teachers and students should make good use of the characteristics of learning at different ages in the process of teaching and learning, so as to teach and learn more effectively.

Keywords: crtical period hypothesis, second language acquisition

1. Introduction

Language serves as a way to communicate. With the increasing globalization and the increasingly close communication between countries, the atmosphere of learning a second language is also becoming stronger. During and after emigrating, colonizing, and globalizing, English has been a widespread language which has become the mother tongue for native speakers and a foreign language for non-native speakers. Moreover, people throughout the world have employed it for foreign and domestic aims [1]. Nowadays, many people have had the ability of speaking English. Even the very young age child can speak English fluently and some old men can speak several English words or few sentences.

There are many factors contributing to the acquisition of the second language, such as the beginning age, learning method, attitude, motivation, the learners' character and so on. Today, there is a trend that preschool children who learn the second language. In academic field, it certainly has the term called Critical Period Hypothesis that is related to the relationship between age and the second language acquisition.

Therefore, in this article, I would like to research the relationship between age and the second language acquisition. This relationship has been highly valued both at home and abroad. Some think that the earlier children learn a foreign language, the better they will learn. However, other argue that age could not be the determined factor for people to master a foreign language, which means that the

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learning outcomes could be the same in children and adults. In the support, Oyama, Asher, García, Seliger, Krashen and Ladefoed mainly studied the influence of age on pronunciation from the phonetic aspect [2]. And Johnson and Newport studied the effect of age on grammar acquisition at different age [3]. However, for the grammar of the second language, the opposition held different views. McDonald found that at first the younger people took in the knowledge faster, but later on, the older people mastered it better [4]. In order to study this relation between age and the second language acquisition, Eric Heinz Lenneberg proposed the term Critical Period Hypothesis and systematically explain the critical period of language learning [5]. In this essay, I will firstly introduce the term and then list opinions for and against it. Thus, in view of this, this paper puts forward the learning and teaching methods for different age groups, which conform to strategies for second language acquisition.

2. Critical Period Hypothesis

This hypothesis is about whether there is a period of time that is easier to learn a second language than the other time. It concludes that in the early years of a person, the one is much easier and quicker to master a second language from environmental irritation. On the contrary, if a person misses the golden age to learn a second language, he will have a slower process of grasping the knowledge. Wilder Penfield and Lamar Roberts concluded that people who had brain damages before the year of 9 to 12 may recover easier, according to their observations on neural plasticity about the brain recovery of patients. The term, the critical period has been first used in their work [6].

Lenneberg clarified the exact age of the critical period, ranging from two to twelve years old. It means that, he also pointed out that people may achieve slow or unobvious progress of language learning when they turn to twelve or thirteen (also called puberty). Besides, he studied the children who had suffered from aphasia. Based on it, he found that children who developed this illness early could have more chance to make a full recovery [5].

Newport proposed maturational constraints on language learning, that is, people studying language at an early stage would perform more asymptotically in the language than people who are at an adult age. He argued that the reason is that children usually respond and store only parts of language information from others while adults perceive and remember all of the language information. The advantage is that children pay much attention on morphological linguistics instead of the full word or meaning of sentences [7].

Both James and Fromkin and Rodman believed that the two hemispheres of the brain are evenly balanced until lateralization is complete. But after it completes lateralization, the area of language which is controlled by the right side of the brain disappears [8].

3. Evidence Supporting Critical Period Hypothesis

Oyama studied the accent of more than 60 Italians aged 6 to 20 who immigrated to the United States. The study found that only immigrants before the age of 12 had accents more like those of Americans. Similarly, Asher and García researched seventy-one Cuban immigrants aged from seven to nineteen. They were asked to read English sentences aloud which could be marked by English native speakers. In this test, more people under the age of 13 have a nearly local accent than those over 13. Seliger, Krashen and Ladefoed also researched the accent of immigrants. They had the similar finding that most of children under 10 had no foreign accent while a few of people at or over 16 can speak like native ones [2]. From the above experiments in different time,-it can be concluded that age is the factor that has an influence on accent. It means that the earlier the child learn a second language, the better pronunciation they will have.

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Johnson and Newport studied the master of grammar and compared 46 Chinese and North Koreans who began to learn English at different ages. Johnson and Newport tested their grammar by dictating sentences which are grammatically correct or not by half. They found that there was little variation in the ability to learn a foreign language before the age of 15, especially before the age of 10. However, for some older testers, the second language requisition is different among varies people [3].

Birdsong clarified the three stages of a critical period—onset, peak and offset. The sensitivity of critical stimuli will increase at the beginning and reach a peak which will remain for a while. However, after the peak period, the sensitivity will wear off and remain a certain level, which could not grow with age [9].

4. Evidence Against Critical Period Hypothesis

Snow studied the Dutch language learners who were native English speakers. The studies found that in the first few months of learning, people whose age were between 12 and 15 or over 18 mastered the language well. But one year of study, persons aged 8 to 10 and 12 to 15 caught up with the group mentioned above. However, the smallest testers, children who were 3 to 5, did the worst in exams. It can be seen that the study denied the existence of critical period because the children were expected to do the best under this hypothesis [4].

Based on the perspective of cognitive linguistics, McDonald studied the requisition of grammar on different age group of people. It is found that second language learners who begin learning at a later age are not necessarily intrinsically different from native English speakers in terms of grammatical knowledge. In contrast, due to the lack of automatization of relevant grammatical knowledge, the grammatical processing process of second language learners with a late initial learning age is similar to that of native English speakers under tension stimulation. Therefore, the deficiency of second language learners with late initial learning age in grammar judgment task cannot be simply attributed to the role of critical period, but should be more considered in the cognitive processing of learners [4].

According to Hakuta, to prove the existence of critical period, at least the following four conditions must be met:

(l) There should be a definite time of initiation and bunching;

(2) The second language acquisition at the end of the critical period should have an obvious broken layer;

(3) There should be evidence that there is a qualitative difference between second language acquisition during the key period and after the key period;

(4) Environmental factors should not have a great influence on second language acquisition during the critical period [8].

5. Discussion

Critical period is a factor that may have influence on the language learning of acquisition. However, it is not the determining factor to affect the degree of language mastery because there are many other factors contributing to the outcomes of a language learning.

Motivation is the other factor that may influence one's acquisition in language learning. The interests in studying are key, which is helpful for learners to maintain a good state in the process of learning and make active learning arrangements [10].

In addition, learning strategies are special methods or techniques that learners use to learn a second language. They can be behavioral or psychological. The former one includes repeating new words out loud, which can help learners remember them. The latter means that a new word meaning can be calculated by using linguistic or situational context [11].

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Cognitive abilities, characters, environment and so on could also influence learning a second language. Therefore, the age is not the single and only influence factor on acquisition of a language. We need to pay much attention to diverse factors because the study of a second language may not be satisfactory if we ignore some of the factors.

6. Inspiration for Teaching

6.1. For Children (3--10)

There is a heated discussion on early education of English on children. Some believe that it is better to let children learn a second language as early as possible, so that they can learn it easier and quicker than people who do not grasp the golden age of learning a language. However, others argue that this statement is not that correct due to different situations of people.

As the children are too young to distinguish the standard pronunciation and English with an accent. Professional English teachers who are good at both English knowledge and psychology on children are needed. Basic language skills and theories are the least standard that teachers should have and the comprehension and realization of the psychologic development of children is gradually and obviously important nowadays. Besides, teachers should notice different needs and teaching methods of different children. For example, some children with shy character need the encouragement of teachers more, so that they can confidently and interestingly to study. In addition, in this period, the speaking skills of the second language is a priority. The reason is that children may not good at literacy or writing words. So, it is inappropriate to ask students read or write long articles. Thus, teachers and parents (if conditions permit) should give children more chances to speak the second language just for daily communication at the beginning.

6.2. For Teenagers (11--18)

Adolescents' ability of language communication, comprehension and memory is enhanced, and they can have a deeper understanding of the internal relationship between language and culture. Therefore, based on the previous vocabulary and pronunciation, the input of grammar knowledge should be appropriately increased, and oral expression should be emphasized. Thus, in the stage, learning a second langue should focus on the application of a language by the Audio-lingual Method, the Oral Approach and Situational Language Teaching and Communicative Language Teaching. Besides, teenagers should learn the language comprehensively and systematically because they can handle it and the maturity of brains.

In addition to the teaching methods and study strategies, teachers should also notice the process of learning. They need to design different teaching contexts with fun activities to motivate their interests of learning rather than emphasizing the grades of texts and ignoring the happiness in a period of learning a language [12].

6.3. For Adults (over 18)

Adults have perfected their way of thinking and can easily handle complex language forms and contents. They have the advantage in foreign language reading and writing. Thus, in this stage, the Grammar-Translation Method CLT are mainly used in language learning [12]. Adults can study the grammar well and can have a large number of vocabularies, so that they are good at reading and reading. In this case, speaking skills should not be ignored. First, they may be bad at speaking for a minute due to the fluency or pronunciation. However, they can write smoothly academic and wonderful words in articles instead of orally expressing. Second, adults may have a little or strong accent in speaking a second language. Thus, they are expected to develop speaking skills [13].

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On the other hand, they need to guarantee the continuity of learning. Adults usually are occupied with family tariffs or jobs, so they could not throw themselves into their studies. In this case, they need to balance the time between study and work or life. Besides, they should create more chances for practicing language skills by repetitive exercise.

7. Conclusions

Critical Period Hypothesis proposed by Lenneberg, which remains controversial. Because some experiments and investigations found that starting learning a new language at an early age is better than who begins at a later stage. In contrast, other experiments and investigation pointed out there is no difference in learning the second language between young age and old age. It means that the one who studied the language later can also catch up with people who begin earlier.

Another point of contention is the exact timing and the number of critical periods. Nowadays, opinions have varied as to the exact age of the critical period. Some scholars proposed the critical age is below 12, 13 or even 10. Thus, there is no clear time of the critical period. In addition, the previous studies have found that maybe the critical period is not the only one in a life. To be more specific, the critical period may come one by one according to the four language skills—listening, speaking, reading and writing.

The researchers usually focus on one language skill and investigate it on different groups of ages in each previous study. Here is the problem. First, maybe the critical period varies from different people. It means that one person may master the second language better at a certain age but the study found the critical period of most of investigators is not like that. Thus, some individual cases also need to be taken into account. Second, because the researchers only investigate one language skill in one study and then according to the results, they came out that the relation between age and acquisition of a language learning. If they investigate more language skills in one study, whether the results vary according to the content of test?

The education of a language learning depends on different learning age. For children, the main aim is to build their confidence in using the second language and to practice their oral speaking. For teenagers, the teaching goals should focus on the comprehensive system of learning. And the process of learning is vitally important because how many scores they get in exams should be focused, also their interests, motivation, and happiness in the process should be cared about. For adults, the learning achievement is to make use of time to learn a language and practice more and more. Besides, they also need to pay more attention to accent and pronunciation.

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