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*Original Paper*

# Unlocking Second Language Mastery Navigating the Complex Terrain of Adult Language Acquisition

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***Abstract***

*This paper mainly focuses on the more effective way that language learners who "escaped" during the critical period of acquiring a second language. In the paper, we use the methodology of bibliography to compare the essential differences between children and adult learners from the perspectives of linguistics, neurolinguistics, society and culturology, and further study SLA theory based on the author's own educational experience. It is an indisputable fact that older language learners have less flexibility and plasticity than children due to their mature brains. However, it can be partially compensated for by cognitive ability and social experience thus overtaking a corner. Nonetheless, some points are especially worth paying attention to, such as the necessity to "design" the grammar into the structure of the paragraph to be the "guiding framework" of thinking; Learners should not be excessively concerned about the accuracy of grammar and words at academic level, so as to avoid negative emotions such as anxiety, which affect language learning, and is partly consistent with the SLA's Affective Filter Hypothesis. This research offers fresh guidelines for students and teachers of second languages to consider contemporary methods of teaching and learning, particularly the "fanatics" of "natural acquired" or "academically structured education." Additionally, researchers and teachers who consider upgrading teaching methods offer evidence and inspiration owing to the growing popularity of artificial intelligence.*

***Keywords***

*the acquisition of a second language (L2), American Sign Language (ASL), neurolinguistics, age effects in SLA, adult language learner motivation, intercultural competence, contextual learning in L2 acquisition, Technology-assisted language learning (TALL)*

## 1. Introduction

According to Eric Lenneberg's 1967 crucial time Hypothesis (CPH), which he defined as beginning at around age 2 and terminating at puberty, or around age 12 to 14, the major language acquisition process must take place during a crucial time. This stage is associated with the brain's lateralization process, and language acquisition gets considerably more difficult after this, according to Lenneberg. The CPH has generated a great deal of discussion and investigation in the fields of psychology and linguistics. It is often acknowledged that younger learners in immersion contexts generally perform better than older learners in terms of acquiring a second language (L2). However, there is less consensus on the interpretation of this age impact and how it pertains to a critical period.

Following a reexamination of the clinical data that Lenneberg had employed, Stephen Krashen concluded that cerebral specialization—a central component of the theory—occurs significantly earlier than Lenneberg had calculated, raising doubt on the relationship between lateralization and capability for language acquisition. Additionally, research on deaf children learning American Sign Language (ASL) have proven that language acquisition capacity decreases linearly with exposure age rather than sharply at a certain age, as a strong CPH would have expected. This implies that while there may be a decline in language learning capacity with age, there is insufficient evidence to determine a rigid critical period. The case of "Genie" a feral child found at age 13 who had trouble learning to talk, seems to support the CPH, but other cases, like "Isabelle" who was raised alone until she was six and a half years old, appear to cast doubt on the theory's applicability. Moreover, behavioral approaches, such as those proposed by B.F. Skinner and O. Hobart Mowrer, refute the notion of a biologically determined critical period by arguing that language acquisition is like any other behavior learned through conditioning and can occur at any age.

Lenneberg's CPH has been influential in shaping the understanding of language acquisition, whereas subsequent research has shown that the reality is more complex, with factors such as the nature of the language being learned, the learning context, and individual differences playing significant roles. This article will explore more possibilities for young adults to acquire a L2 from different perspectives, such as neurolinguistics, sociology and psychology, combined with SLA research by Stephen Krashen, who is an American linguist and has made significant contribution in the field of second-language acquisition.

## 2. Differences in the Mechanisms of Linguistic Acquisition in Adults and Children

Children learn language by nature and imitation, whereas adults rely more on rules, schooling and conscious memory. Steven Pinker (2007), in his book "*The Language Instinct*," argues that humans are born with an innate capacity for language, supporting the concept of a universal grammar coming from Noam Chomsky, a linguistic researcher who is renowned as "the father of modern linguistics". Language acquisition in children happens during a crucial stage of brain development that is marked by increased neuroplasticity and is frequently effortless. This makes it easier for them to assimilate

linguistic structures and patterns. An influential work "*The Language of Thought*" (1975) by Jerry Fodor, whom analysis exerted significant impacts, argued for the existence of an innate "Mentalese" - a language of thought. The proposition he made was that our best scientific theories of psychological activity postulate the existence of Mentalese. Ray Jackendoff, an American linguist and professor, has consistently straddled the boundary between generative linguistics and cognitive linguistics. He is committed to both the existence of an innate universal grammar and to providing an account of language consistent with our understanding of the human mind and cognition, which aligns with the idea of an innate capacity for language.

As they grow older, children's language skills increase, especially in the elementary school years when they become proficient at grammar, vocabulary, and conversation. Some external auxiliary factors also play a very positive role in children's language acquisition process. For instance, interactive learning methods like games and multimedia resources are particularly effective in enhancing language learning in children, as they encourage active engagement and fun. However, Steven also suggests that the brain's learning machinery for language exists only during a specific period of childhood and is then disassembled, making language acquisition post-childhood more challenging, coinciding with Eric's CPH.

On the other hand, language acquisition in adults presents unique challenges, partly due to the different cognitive functions and developmental stages, according to Sarah Steber (2021), who mentioned the challenges of adults in acquiring a new language which are supported by neuroscientific research. Unlike children who can naturally acquire a colossal number of expressions through imitation, adults typically have more difficulty recognizing new vocabulary and grammatical rules. Sarah stated that "phonological and lexicon-semantic features are essential to word learning for adults, and adults must recognize phonemes, put them together to form words, and then decipher what those words mean." There is no doubt that this "consciousness" advantage possessed by adults seemingly has to some extent forcibly broken "*The Language Instinct*" shortcut to "easy acquisition of language".

Perfect second language acquisition is less common in adults than in children, but there are still significant indicators of vocabulary learning success in older adults, such as hippocampal volume and associative memory function prior to beginning language learning, according to Jonna Nilsson (2021), who carried out relevant studies on the plasticity of the experience dependent brain. This implies that adults can help themselves learn a new language by utilizing their acquired associative memory skills. In addition, a related research report written by Wei (2019), *<The Cognitive Benefits Of Language Learning: Broadening Our Perspectives>*, focusing on the relationship between bilingualism and various functions, such as executive function, literacy, health and creativity, indicates that bilingualism is aligned with broader cognitive perspectives, including intercultural understanding. By this, it indicates that older linguistic learners who have had rich experience in various fields and been capable of employing variegated learning strategies such as statistical learning, might have a chance to bridge the chasm that CPH dug, relying on the frequency of occurrence of specific rules.

### 3. The Neurolinguistic Perspective

To explore deeply the possibilities of language learning in the brains from different ages. To demonstrate this possibility more scrupulously, a more in-depth exploration is conducted from the perspective of neurolinguistics. The purpose of human beings learning language in infancy and childhood is not simply communication, but more for the tapetum development demand. Patricia Kuhl, an author of several theoretical papers on language experience and development of language acquisition, suggesting that early language exposure predicts white matter myelination by the time a child is two years old. This illustrates that early language exposure and subsequent brain development are strongly correlated. Her studies also depict that such a behavior caused by developmental need can be traced back to early language exposure and nasciturus' parent-child interaction. In addition, human language signals are biologically predisposed to be detected and processed by newborns, especially in the left hemisphere. Studies on functional MRI have demonstrated activation in areas resembling Wernicke's area in adult subjects, supporting this early specialization in the left hemisphere in the processing of language-related signals. Children then learn to recognize and make native speech sounds between the ages of two and five. This correlates with the brain's increasing specialization in phoneme recognition of native languages. Activation peaks during phonological processing have also been observed in fMRI studies in the left frontal lobe, left temporal, and inferior parietal areas. Children start to construct simple sentences during this time and experience a rapid increase in their vocabulary. This is associated with modifications to the structure of neurons, including the development of new axons and dendrites, which enhance language learning. Six years old is a turning point in cognitive development, expanding language exposure and improving linguistic reflection, all of which contribute to the growth of metalinguistic understanding. During this phase, children's language skills continue to advance and their vocabulary continues to expand significantly. MRI scans conducted during this time frame reveal increases in white matter volume, especially in areas linked to language, which may point to more integrated and connected neural circuitry. This rapid rise in white matter volume occurs in both hemispheres, but it is more significant in the left language-associated regions.

There are five points given about the view that as humans age, the brain's accessibility decreases, which greatly affects the learning of first or second language. **Synaptic Pruning:** during early childhood, the brain experiences a dramatic increase in synaptic connections. Neural networks become more efficient as unwanted connections are "pruned" away over time. This synaptic pruning process, while streamlining brain function, also reduces plasticity. It means that the brain becomes more specialized but less adaptable in certain functions, including language acquisition. "*Mechanisms governing activity-dependent synaptic pruning in the developing mammalian CNS*" published in *Nature Reviews Neuroscience* also discusses how synaptic pruning, defined as the removal of a subset of synapses in response to changes in neural activity, plays a role in the developing nervous system, proving that this process affects plasticity as it progresses. **Myelination:** a study named "*Myelination of language-related areas in the developing brain*" in *PubMed* explains the rapid development of

linguistic abilities in early childhood and its correlation with brain maturation, particularly focusing on myelination in language-related areas, highlighting how myelination progresses in the brain, affecting language acquisition. While this process enhances certain brain functions with ages, the ability to form new neural connections easily may decrease. **Changes in neurotransmitter levels and receptor sensitivity** also play a variation. "*Brain neurotransmitters in aging and dementia: similar changes across diagnostic dementia groups*" discusses reductions in the levels of neurotransmitter substances in the aging brain, emphasizing the age-sensitivity of dopamine neurons. This reduction can impact the brain's capacity to adapt and acquire new languages. **Hormonal Changes:** hormonal fluctuations throughout life can affect brain plasticity. For example, critical periods in language development often coincide with times of hormonal changes, such as puberty, influencing the brain's receptivity to second language learning. **Reduced Neurogenesis:** neurogenesis is more active in childhood, providing a greater capacity for learning and adaptability. However, the rate of this, or the creation of new neurons, go down with age.

Sarah believes that although language acquisition in adults is intrinsically more difficult than in children, the adult brain still exhibits amazing plasticity during this process. According to neuroscientific research employing techniques such as fNIRS and EEG, adults' first vocabulary learning is believed to be significantly influenced by memory-related processes and cognitive control. fMRI also studies indicate a shift in brain activation during language production tasks from bilateral towards increasingly lateralized representation in the prefrontal cortex. This alteration is thought to represent a notable increase in white matter volume, which is associated with improved cognitive function. This viewpoint is also supported by Caitlin Ware (2021), who offers a systematic review on the question of whether learning a second language might enhance neuroplasticity. By studying in the differences in brain measures between monolingual and bilingual older adults, she found that these include higher gray matter volume in certain brain regions and greater functional connectivity in older bilinguals, correlating with more efficient executive functioning. This indicates that the cognitive abilities of the human brain develop as the second language is learned with structural and functional changes in the brain. Adult language learners heavily utilize Wernicke's (the area linked to language comprehension) and Broca's (the area responsible for speech production), both of which are essential for vocabulary and grammar acquisition. These two areas function well together because of the high degree of plasticity in the brain, but their activity level and function in language development not only depend on a person's age but also their language environment, learning opportunities, and general neurodevelopment. In the sections that follow, the sociocultural aspects of language acquisition in children and adults, and further the possibility of adult language learning will be examined.

## 4. The Influence of Social and Cultural Factors

Vygotsky's sociocultural factors emphasize the role of social interaction in cognitive development. The sociocultural theory of Lev Vygotsky, which places a strong emphasis on the value of social interaction

and cultural context, has greatly influenced how people understanding language learning. According to his theory, social interactions are crucial for the development of cognitive abilities, particularly higher-order thinking skills. For example, during a child's development, each cognitive function manifests twice: once on the social (inter-psychological) level and once on the individual (intra-psychological) level. According to this viewpoint, children's language development is significantly influenced by their social environments and interactions. In his view, children use language to interact with the outside world, and language is internalized into thought and cognition. Children can use language to direct their actions and behaviors through this internalization process, demonstrating how deeply ingrained the cultural context is in the language acquisition process. Rogoff's "guided participation" approach emphasizes that students develop new skills through group projects with more seasoned participants, which is consistent with Vygotsky's theories. As children actively participate in culturally relevant tasks with adults or older siblings, they acquire problem-solving skills and language use, which is a crucial process in their language development.

While Vygotsky's theory was primarily directed toward children, its broad concepts can nevertheless be useful in the context of adult language learning. As an extension of the sociocultural framework, where learning is mediated through cultural tools like textbooks, instructional materials, and digital platforms, adults frequently rely on formal education structures and self-directed learning strategies. In addition, according to Caitlin's research, bilingualism benefits executive functioning in all age groups, including older adults, and it also adds to cognitive reserve. Research has demonstrated that acquiring a second language at a later age can still enhance one's cognitive abilities. Bilingual seniors have advantages in episodic memory, letter fluency, semantic verbal fluency, and general intelligence. However, one of the factors that lead to second language acquisition (SLA) is too challenging for the senior is often related to their first language, because their learning and understanding of the second language is usually based on the "stereotypes" of their first language.

Meanwhile, there are some more profound possibilities that might be found in criticisms of Vygotsky's theory. The first of this is that Vygotsky's theory assumes all societies are similar in terms of social interaction and its role in learning. This assumption may be problematic in light of various cultural contexts, according to Serhat Kurt, a researcher in the social-cultural theory of cognitive development. This suggests that adults' ability to pick up a second language may be strengthened or weakened by their varied cultural backgrounds. Secondly, individual variations in cognitive development, such as the slower rate of cognitive growth noted in certain children, are not entirely explained by Vygotsky's theory. Take gender as an example, a research was conducted under the direction of Dr. Cristina Dye at Newcastle University found that in language tasks involving irregular and regular verbs, girls were more likely to use their mental dictionaries, memorizing and recalling forms like "walked," while boys relied more on mental grammar to compose such words. This implies that when it comes to memorization of events and facts, girls may have an advantage over boys. The results of studies conducted on children can also be applied to adults. Men and women have different capacities for

storing and processing information, indicating that different approaches that distinguish between genders to learning are sure to be one of advantageous strategies for adults acquiring a second language.

**5. Second Language Acquisition (SLA) Theory**

Describe the significance of this theory for comprehending adult language learners. Stephen Krashen's Second Language Acquisition (SLA) theory is a significant framework in the field of language learning. It consists of five main hypotheses:

**Acquisition-Learning Hypothesis:** This distinguishes between "acquisition" (a subconscious and intuitive process of picking up a language) and "learning" (a conscious process of studying and understanding language rules).

**Monitor Hypothesis:** This suggests that conscious learning acts as a "monitor" or editor to what we have acquired, helping to make corrections and adjustments in language use.

**Input Hypothesis:** Central to Krashen's theory, this hypothesis states that learners improve and progress in their knowledge of the language when they are exposed to language input that is slightly above their current level (i+1). This input should be comprehensible to the learner, providing enough challenge to promote language development while still being understandable.

**Affective Filter Hypothesis:** Krashen posits that emotional factors such as motivation, self-confidence, and anxiety play a significant role in language learning. A low affective filter means that a learner is more open to acquiring language, while a high affective filter can impede acquisition.

**Natural Order Hypothesis:** This hypothesis suggests that language acquisition occurs in a predictable order and that certain structures are learned before others.

In the Acquisition-Learning Hypothesis, Krashen makes a distinction between "acquisition" and "learning." "Acquisition" is a natural, subconscious process that happens when one's attention is drawn to meaning instead of form. It's comparable to how kids pick up their first language. Conversely, "learning" refers to the conscious understanding of a second language, which includes being aware of, conversing in, and knowing the rules. According to Krashen, acquiring a second language is more crucial to becoming fluent in it than learning it. Meanwhile, Genesee (1987) in "*Learning Through Two Languages: Studies of Immersion and Bilingual Education*" found that students in immersion programs, where they are surrounded by the language in a natural setting, acquire the language more effectively. Here, what learners need to distinguish is that creating an immersive language environment is just a condition, and using "acquisition thinking" rather than "learning" to learn language is the core of the topic. For example, Long's "*Interaction Hypothesis*" (1983) suggests that interaction with native speakers, especially when it involves negotiating for meaning, aids in language acquisition. Suppose you are an English learner and create a language environment that is specific to your area of expertise. In communicating with colleagues, when you give instructions to your subordinate's times, their answer is "acknowledged". You do not need to worry about what "acknowledged" means in your native

language (older language learners often force their second language to be associated with their native language, to some extent this is the "stereotype" that hinders second language acquisition discussed in the previous chapter), you just need to know that it means "affirmation" in this context and its correct pronunciation. At the same time, you need to consciously use the same word when your boss gives you an order. DeKeyser in "*Stepping Stones Toward Better Understanding*" (2013), explores the differences in language acquisition capabilities between adults and children, suggesting that adults can leverage their advanced cognitive skills and life experiences to implement more structured and strategic approaches to language learning. By this, it means that rich experiences allow adult learners to create more different types of immersive learning environments, and their mature cognitive and understanding abilities also allow them to mobilize brain data to more easily or quickly understand the meaning of certain words or sentences in this scenario, all of which corresponds to Serhat's argument and the report of "*The Cognitive Benefits of Language Learning: Broadening Our Perspectives"* above. However, this "acquisition thinking" is believed to be built on Task-based activities -- Ellis (2003) in "*Task-Based Language Learning and Teaching*" argues for the effectiveness of task-based learning in promoting language acquisition. In addition, Lightbown and Spada (1999) in "*How Languages are Learned*" highlight the importance of meaningful interaction in the target language for effective language acquisition. In other word, the circumstances or clubs that learners make or join should revolve around the business they involve, or their interest or hobby, so as to give them a full understanding of the corresponding scene or the context that may arise in the scene. It is just like what Joshua Hartshorne said "children do not usually begin speaking in two-word sentences until they have learned a certain number of single words." Albeit the current discussion not about children or word learning, the principle is the same. In other words, a scene that the learner is not familiar with means that the learner has no word reserve for the scene.

The Monitor Hypothesis, as part of Krashen's Second Language Acquisition theory, posits that conscious learning of a language acts as a "monitor" to what we have subconsciously acquired. This monitoring process involves using explicit language knowledge to edit and correct spoken or written output. Ellis (2005) in *"Planning and Task Performance in a Second Language*" discusses how pre-task planning improves the grammatical accuracy of learners' spoken and written outputs. He believes that before engaging in a speaking activity, learners can plan what they are going to say, writing down key phrases or structuring sentences, which allows them time to think about grammar and vocabulary. Swain (1995) in "*Three Functions of Output in Second Language Learning*" also highlights the importance of output, which is enhanced by delayed production, allowing for reflection and self-editing. It is worth nothing that this should not be from an academic perspective, but should be about the variability around the expansion of thinking. Take grammar as an example, when you're asked " why are you going to study aboard ?", grammar would be a pattern to assist you to broaden your mind. You can explain it in different ways, such as in "purpose" + "result", "I want to emigrate so studying abroad is a shortcut, " -- " "to infinitive" + "so", and "contrast", "Studying in the UK will help

me in my future career more than in my own country," – "more than" or "as...as...", and so on. Adults have more "intentionality" for any topic than children, and grammar should be an instruction or a tool for them to expand their thinking and make sentences. On the other hand, engaging in activities where learners first observe or read language input, allows space for the Monitor to operate. Learners finally need to turn this conscious behavior, the Monitor, into subconscious. For example, when you hear "so as to...", what you should think of is not what it means in your native language, but what the speaker is going to say about his purpose.

According to Krashen's Second Language Acquisition theory, language learners pick up grammatical structures in a predictable order. This is known as the Natural Order Hypothesis. The hypothesis refers to a "predictable order" as the order in which students usually pick up grammatical structures. For instance, in learning to speak English:

**Early Acquisition:** Some morphemes in grammar, like the plural "-s" (like "dogs"), the progressive "-ing" (like "running"), and the prepositions "in" and "on", are more likely to be picked up early on.

**Later Acquisition:** More complex structures like the past tense, third person singular "-s" (e.g., "he runs," auxiliary verbs like "is running"), and so on are typically acquired later.

Numerous investigations have noted this acquisition order. For example, children learning English as a second language exhibit a consistent order of morpheme acquisition, according to Dulay and Burt (1974) in "*Errors and Strategies in Child Second Language Acquisition*". Bailey, Madden, and Krashen's (1974) study on adult learners revealed similar results.

While there is a general sequence in which grammatical structures are acquired, Krashen also notes in the statement that "it is important to note that while there is a natural order of acquisition, it does not mean that one structure must be completely acquired before another begins to be acquired," implying that this process is not strictly linear. For instance, a student may begin utilizing the past tense correctly in some circumstances, but they may still make mistakes in other scenarios. Alternatively, even though they still need to work on mastering simpler structures like the past tense, they may begin to employ complex clauses in their speech, albeit with occasional errors. This part of the theory recognizes the diversity and complexity of language acquisition. Research demonstrating that language acquisition is a dynamic process with overlapping developmental stages lends credence to it. The non-linear nature of language acquisition is illustrated by Lightbown and Spada's (2006) discussion in "*How Languages Are Learned*" of how learners may demonstrate evidence of acquiring more complex structures while continuing to make mistakes in simpler ones. Therefore, returning to the previous principle, monitoring the accuracy of grammar is not as vital as people think in the early or even middle stages of learning for older learners. The focus of monitoring once again supports that "the primary goal should be to cultivate subconscious thinking in second language".

The Input Hypothesis, which highlights the value of exposure to understandable input that is just a little bit above one's current comprehension level, is essential to adult language learning. It implies that adults must interact with content that both tests and clarifies their prior knowledge in order for

language acquisition to be effective. With their more mature cognitive capacities and life experiences, adults may have some advantages in this area. This is especially true in contexts of self-directed learning, where adults can more carefully choose the experiences and resources that offer this ideal degree of challenge. In "*In Other Words: The Science and Psychology of Second-Language Acquisition*" (1994), Bialystok and Hakuta make the case that adults' analytical abilities can be useful in locating and utilizing input that corresponds with their current level of language proficiency.

Studies such as Snow and Hoefnagel-Höhle's "*The Critical Period for Language Acquisition: Evidence from Second Language Learning*" (1978) go into further detail about this relationship. They discovered that older learners frequently thrive in learning through structured input due to their advanced cognitive abilities, despite the fact that younger learners have an advantage in acquiring near-native pronunciation. The term "structured input" can be further defined as language learning materials or activities that are purposefully created to draw learners' attention to particular linguistic features and to do so in a methodical manner. Adult learners benefit more from this approach than children because they can process and comprehend the sophisticated presentation of language components. Targeted Reading or Listening Tasks, for instance, are intended to draw attention to certain linguistic elements within a natural context. A listening exercise might focus on identifying instances of a particular sentence element or syntactic structure (like multiple combinations of explanations using clauses) within a conversation or a lecture; or Thematic Vocabulary Building, vocabulary is often introduced in thematic clusters (general scenes like food, travel, family, and academic one like renewable energy, war, education), allowing learners to see words in a meaningful context and understand their usage in specific situations. By participating in credible exam preparation programs like TOEFL and IELTS, students can obtain all of these. It should be noted, though, that the training system will not do much to improve language proficiency if it concentrates on test-taking tricks unrelated to language system training.

The Affective Filter Hypothesis exhibits that negative emotional factors can impede language learning. It is widely acknowledged in the field of language education that adults often feel more anxious and have other negative emotions associated with language learning than children do. This can be attributed to a variety of factors, including self-consciousness, the fear of making mistakes, and the pressure to apply what has been learnt in real-life scenarios. n their groundbreaking work "*Foreign Language Classroom Anxiety*", Horwitz, Horwitz, and Cope (1986) specifically address the problem of anxiety in language learning. They talk about the detrimental effects this anxiety, which can be especially severe in adults, has on learning a language. An extensive review of the literature on anxiety in second language learning can be found in MacIntyre and Gardner's (1991) work, "*Methods and Results in the Study of Anxiety and Language Learning: A Review of the Literature*". They come to the same conclusion that anxiety can, in fact, pose a substantial obstacle to adult language learning. Nevertheless, Marinova-Todd, Marshall, and Snow's 2000 article "*Three Misconceptions about Age and L2 Learning*" addresses the critical period hypothesis and other age-related factors in relation to language

learning, noting that children's language acquisition is typically more successful than that of adults due to their lower affective barriers. Children's less developed sense of self-consciousness and their more open, risk-taking approach to language use attribute to biological and neurodevelopmental factors, being discussed in the above section. The plasticity of a child's brain facilitates language acquisition, as examined by Johnson and Newport (1989) in "*Critical Period Effects in Second Language Learning: The Influence of Maturational State on the Acquisition of English as a Second Language*". They propose that the less developed cognitive structures that control fear and risk assessment are related to this plasticity. In particular, the prefrontal cortex and other brain regions linked to risk assessment and self-consciousness are still developing in children. Their perception of risk and fear are influenced by this continuous development, which frequently results in them becoming less reticent and more willing to take chances when learning a language. Furthermore, Bjorklund and Green (1992) contend in "*The Adaptive Nature of Cognitive Immaturity*" that children's naturally less restrained approach is a positive part of their cognitive development, which is essential for language acquisition.

However, Gardner and Lambert (1972) in "*Attitudes and Motivation in Second-Language Learning*" highlight the significance of motivation in language learning, and negative emotions are not merely emotions mentioned in Krashen's Affective Filter Hypothesis. They distinguish between instrumental and integrative motivation. Adult language acquisition may be greatly impacted by both kinds of motivation. Furthermore, Dörnyei (2005) argues in "*The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*" that adults with lower intrinsic language learning capacity can make up for it with strong motivation. He contends that adult language acquisition can be achieved through the use of successful learning strategies in conjunction with motivating elements like advancing one's job, fostering personal relationships, or having cultural interests. Subsequently, Casey, Jones, and Hare's 2008 book "*The Adolescent Brain*" offers insight into how hormonal shifts during adolescence affect risk-taking behaviors. Their research provides insights into more positive emotional factors that imply to promote second language acquisition for young people who have passed the critical period, even though the purpose of this research is not directly related to language learning. Research suggests that teens are more likely to engage in risky activities as a result of this mismatch in brain development. They are less affected by possible negative outcomes and more by peer pressure and instant rewards. In other words, although the risk-taking factor that is beneficial to language learning will decrease as age increases, it does not decline suddenly and quickly, meaning that even if it is not within the critical period, learners still have the opportunity to be like children to successfully acquire a second language. Even though this tendency toward taking risks is sometimes seen negatively, it can also be beneficial, particularly when it comes to picking up new abilities like language learning. However, as was previously shown, these variations in hormone levels might potentially have an impact on brain plasticity.

## 6. Conclusion

Over the course of my extensive educational career, I have interacted with a wide range of language learners, the majority of whom are young adults or teenagers. For a variety of reasons for learning languages, some of whom are for overseas study, or for professional advancement, and merely to satisfy the demands of schools or parents for assessments. I will broadly categorize these learners into two groups: "environmental type" and "academic theory type," ignoring variables such as age, gender, and unique personality traits. The former group tends to follow Krashen's "Acquisition" idea, in accordance to which they have been enamored with a specific second language—like English—since they were in primary school. They enjoy watching American dramas, singing English songs, etc. Despite the fact that they were given more official and professional schooling in their subsequent stages, I think their language ability is "naturally acquired". Another type of academic is very entangled in the use of words and grammar. For example, "Warwick" cannot be called "the school of Warwick", it must be "the university of Warwick". In practice, however, their English proficiency is significantly worse than that of the first group of students in terms of practical application, and even eclipses it in some exams whose main goal is to evaluate students' adaptable language use. The unsettling thing is that these theoretical academics rank highly in another kind of language exam, most of whose types of exams misjudge language as "a subject" (at least not in my opinion).

The objectives of this paper are to provide educators and students the opportunity to assess whether they have embraced this misconception about learning a second language, as well as to give the education department the analytical foundation necessary to come up with lesson plans and modify the educational system. In addition, it offers analytical and experimental support for my upcoming research project, which integrates artificial intelligence with oriented learning for students.

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