GRAU D'ANGLÈS

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Age Factor in Second Language Acquisition

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2021

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This research paper is dedicated to my family – especially my parents –, my friends, and all the people that have supported me throughout this journey.

Acknowledgements:

First and foremost, I would like to acknowledge and show my gratitude to my supervisor Dr. Mar Gutiérrez-Colón Plana, for having helped, advised, supported, and encouraged me to continue with this academic research.

I would like to offer my special thanks to my family, my parents and grandmother, who have supported me and made it easier for me to work; you all understood the importance of this project and made your best for me to feel comfortable and confident.

I would love to extend my special thanks to my partner for his consistent support, encouragement, and belief in me. Thank you for always being by my side, but especially for having taught me that my mental health goes first (without letting me forget of the importance of my paper and my studies).

I also want to show my deepest appreciation and gratitude to all my friends, especially my best friends (Hanane Baba, Salma El Morabit and Chaimae Kachar), who have always supported me and believed in me when I was at my lowest.

And last, but not least, I wish to show my appreciation to a very special person: one of my classmates and best friend, Christian Martínez Olmo. Thank you for all the help and support, and for having been there for and with me during all these months.

Key words:

CAH: Contrastive Analysis Hypothesis

CPH: Critical Period Hypothesis

SLA: Second Language Acquisition

L1: First language

L2: Second language

(LAD): Language Acquisition Device

MRI: Magnetic Resonance Imaging

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1. Abstract

Second Language Acquisition occurs when a person acquires a foreign language besides his/her mother tongue, and there are some factors that influence a person when doing so. This paper is a literature review of how one of these factors, specifically age, influences the process of learning a language when it is not his/her L1. In order to do this analysis, I have chosen to analyze who acquires a higher level when learning a second or foreign language taking into account how conscious they are of the process of learning, how they behave towards the culture of the target language, and how proficient they become in terms of pronunciation. The results conclude that even though children master some aspects of language better than adults, there should be no overgeneralization since other factors should be taken into account as well. The conclusion drawn is that further research is still necessary in applied linguistics because there is no clear answer to any of the questions posed.

Key terms: *SLA, age factor, young learners, adults, CPH*

2. Introduction

Who learns a language better? This question has been in existence probably since linguistics and psychology started to be related one to the other. However, what do people actually mean by "better learner"? Is it that person with the ability to learn a language faster? Is it the one that reaches the native-like level? Is it the one who understands how the language works? Or is it the one that acquires all the aspects of pronunciation?

The ability to communicate is one of the characteristics of human beings, either verbal language or visual language (sign language, for instance), but either way we acquire language. When a baby is born, it just produces vegetative sounds and cries, but he/she is not able to communicate by articulation yet. However, even though there are several theories on language acquisition, they all agree on one thing: the baby must be exposed to a language in order to be able to acquire and produce it, and generally acquire a variety of complicated lexical and grammatical items, many of them are beyond the learner understanding (Al-Zoubi, 2018: 154).

Moving on to the acquisition of a second or foreign language, there is an issue in this area that does not exist in the area of first language acquisition since this question is not raised: the first language is always, except in exceptional cases, learnt at the same ages. This issue might exist due to the fact that the learning of a target language seems to be a business established by the governments of the different countries that constitute the European Union. According to Devlin (2021), these organizations decided that European children must learn a second language and the European framework of language settles the ideal age for the learning of this second or foreign language at an early age. It seems to be obligatory for children to learn a foreign language "for at least one year" (Devlin, 2021), although it depends on the country's regulation. The compulsory age for the learning of a foreign language differs from one country/territory or another; to illustrate, the German-speaking community of Belgium makes it compulsory for children to learn a foreign language at three years old. Thanks to research carried to understand what the best age to acquire a second language is and why, it was concluded that skills related to the learning and critical thinking are developed during preschool years, which means that

"children have a natural ability to learn, which is developed during the first 3-4 years of their life" (Parent, 2016).

Nevertheless, some learners may be rather constrained to learn a language that is not spoken in their natural environment. This constraint can be seen in parents wanting their children to acquire a foreign language because, apparently, it will be more beneficial for them: these children then are taken to academies to study that foreign language. However, they should consider that this is the parents' choice and not the children's, for which these learners may feel forced to learn a language just to please their parents, and this causes their level of motivation to be typically low.

Taking into account the factor of age, it is often said that children learn better a second language than adults; is this statement true? Or is it the other way round? At what age should children be introduced to a foreign language at school? What about the Critical Period Hypothesis, is it true for all learners? Or are there other factors that influence a person more than age? These are frequent questions that people may ask, but there does not seem to exist a correct answer for them, which is the reason people still speculate and create hypotheses about the topic.

Notice that in language academies students are typically classified by level of fluency, not by ages: in a class of *intermediate level*, you may find adolescents of about nineteen years old studying with adults of about fifty years old. This may be a way to prove that age, in fact, is not an inconvenient when learning a language, and people with a big gap difference in age can have the same level of proficiency in a language that is not their L1. However, it is commonly argued that pronunciation is the most complicated

aspect to acquire at a proficient level in language learning; this can be somehow proved (still not for all cases), but it will be seen in depth later on in the paper.

The motivation of this project is the environment that surrounds me, where people from different ages are learning a second or foreign language and I have been curious about it. The aim of this dissertation is to do a theoretical review of the influence that age has in the acquisition of these languages. In order to do an investigation on this topic, I pose the following research questions that will be answered:

RQ1: According to research, children and adults do not acquire the aspect of pronunciation in the same way: who seems to achieve the native-like accent in a foreign language in terms of age?

RQ2: How do metalinguistic consciousness and culture of the target language affect young and adult learners?

3. Literature review

3.1. Key terms

Second Language Acquisition is a process through which a person decides to learn a language other than their L1 (Hoque, 2017: 1). It is obvious that not all those who learn a second language do so for the same reason; some do because they like the language, others' motivation may be their job, or even because they need that language to be able to communicate in the country where they are living. Psychology is also present in language acquisition: it is considerable to mention the universal grammar, a theory that states that a human being's brain already has mechanisms exclusively reserved for the

acquisition of language before we are born. However, it is still necessary for children to be exposed to the language and receive input.

It is necessary to dichotomize two terms that are frequently used in language acquisition: second language acquisition and foreign language acquisition. *Second* and *foreign* have different meanings in this context: the difference lays on the environment and outside of the learning setting. If the learner's exposure to the language is unlimited and they are going to have access to practice it even outside the classroom, we are talking about second language acquisition. For example, an immigrant living in Barcelona needs to learn Spanish and/or Catalan in order to communicate, and they will be surrounded by people speaking that/those language/s. Contrarily, learning a foreign language means that outside the classroom, the learner is not likely to be immersed by this language because it is not the one spoken in the country where they live, as would be the case of a Spanish person learning German in Spain.

Another dichotomy used in linguistics when talking about acquisition of a language is the one between *acquiring* and *learning*. Many people use these two terms indistinctively, but there is indeed a difference between them, and in this case the difference lays on the consciousness. When a person is learning a language, it means that they are conscious of the process and they do it voluntarily: they learn the grammatical rules, the theoretical frame, and they practice it too. But when a person is acquiring a language, we talk about an unconscious process because they are exposed to it, as for example babies when they acquire their L1 (Hoque, 2017: 2). Children do not start learning their L1 when they are taken to school, they just acquire it through being exposed to the language by their parents or caretakers.

3.2. General factors influencing SLA

It is acknowledged that not every person learns a language in the same way since there are factors influencing each individual when doing so, and we must differentiate between general and personal factors. General factors are those that can be perceived by a third person, and personal factors are those whose perception are limited to the first person, according to Schumann and Schumann, and therefore each individual has different strategies when learning a language (Ellis, 2015). Focusing on the general factors, there are countless of these that influence a learner, but the most studied ones are the following five: motivation, aptitude, personality, cognitive style, and age (Ellis, 1994).

Each of these factors operate in different ways according to the learner; for instance, it is quite impossible to detect the same level of motivation in all learners of a specific language since not all of them have the same objective (Ellis, 2015). There are different types of motivation as to learning a second or foreign language: some voluntarily choose to learn that language, others' motivation can be caused by a position in their job, and others' might be their need to be able to communicate in a certain environment (for example, a Spanish person living in China learning Chinese in order to be part of the community).

As for the aptitude, this term denotes a person's capacity or potentiality to learn a language. Tests can be found for the measurement of aptitude, evaluating to what extent the learner can identify new sounds, comprehend the grammatical functions of words and grammatical rules, and remember new vocabulary (Ellis, 1994).

One of the most individual factors in language learning is personality, seeing that not everybody is equal (Sharp, 2008: 18) and each individual has different traits: an introverted learner or a person with anxiety does not perform their oral skills as successfully as an extroverted learner, for instance. Personality is also one of those factors that cannot be easily identified and measured, which makes it difficult for researchers to study it thoroughly (Ellis, 2015).

Regarding cognitive style, this is defined by Ellis (2015) as "the manner in which people perceive, conceptualize, organize, and recall information", that is, the strategies that learners use to absorb the data needed to acquire the language. There are two types of contexts of learning that somehow affect the learner: field dependent and field independent. They mainly differ in that field dependent learners are those who succeed better in naturalistic settings rather than in classrooms, and the opposite is true for the field independent learners (Ellis, 2015).

Having seen these general factors, it can be concluded that they are all essential to be considered seeing that they affect the learners individually and, hence, each being does not learn a language in the same way. Two individuals with different personalities, different motivation and aptitude level, or different learning styles will most likely not learn a language in the same way. However, this may affect the scope of success in the learning of a language since there would be different levels of progress.

3.3. Age factor in SLA

All the factors explained in the previous section are relevant. However, the factor of age is the one that has always caught the attention of linguists, and it is the most visible and

clearest factor; it can be clearly easily measured (Ellis, 2015), not as motivation, for instance. Age is often perceived as a negative factor when learning a second or foreign language since old learners are thought not to be as good learners as young learners. However, this seems not to be true in all cases.

Despite the existence of products created and sold for people to look younger (and rarely, older), human ageing is part of the human development, and it is inevitable; these products and surgery interventions do not prevent aging. The human being is constantly aging from the moment they are born until they get old, and it causes changes in them; these changes might be physical (growth of the human body, change of the hair color…), related to health (loss of vision, hearing…) and neurophysiological or cognitive (connected to the brain and memory loss…). This last-mentioned aspect is the one on which the focus of age will be put.

MRI [1] – or magnetic resonance imaging – is a method that facilitates the visualization of the human brain so that neurologists can examine its internal parts and their functions. Thanks to this method, two areas of the human brain can be analyzed in relation to their relationship and function with language leaning: these areas are the Broca and Wernicke areas. Broca is the area responsible of the language production, whereas Wernicke is the area that controls language comprehension (Blank et al., 2002: 1835). When acquiring knowledge, the brain is the organ that is used the most since learning requires comprehension and remembering. Learning, then, is connected to the brain, and,

[1] Experts, K. H. M. (Ed.). (n.d.). *Magnetic Resonance Imaging (MRI): Brain (for Parents) - Nemours KidsHealth*. KidsHealth. https://kidshealth.org/en/parents/mri-brain.html#:~:text=Magnetic%20resonance%20imaging%20(MRI)%20of,it%20does%20not%20use%20radiation

over the years, there can be found alterations in the way it works; for example, as a person grows older, they tend to have memory issues and forget about things easily. As we age, our brains are thought to develop, and some theories state that over time, it can be observed that the human brain suffers a decrease in its plasticity (Cherry, 2021), which affects the learning and results in us not being able to learn in the same way, and this applies to language learning too. So according to these theories, it is necessary to acquire the language as young as possible.

In order to explain this, it is essential to differentiate between young (includes from infants to adolescents) and adults in learning. The issue of *the younger the better* in second or foreign language acquisition is a general agreement with which most people agree, even those who ignore the theory related to language acquisition and the existence of the Critical Period Hypothesis. This notion of *the younger the better* may indeed apply to children as they happen to be under more advantageous conditions: their schedules are not as occupied as adults', which allows them to have more time to dedicate to the learning and practicing of the language and they receive more attention and feedback from the native speakers of the L2. Their brains, also, have not suffered many changes yet, and they are learning things for the first time, so their brain works as if it was a sponge, ready to capture all the information more easily. Also, their motivation tends to be higher. Littlewood (1984) expands these conditions that favor children rather than adults in acquiring their L2 by comparing immigrant children with their parents when studying the L2:

- the quality and quantity of input received by children is notably higher to the one received by adult learners (Ellis, 2015), which permits the youngest to obtain more attention and feedback from the L2 natives,
- the type of language immigrant parents and children are exposed to is different: children tend to be exposed to simple language rather than complex language, which makes it less complicated for them "to process and understand" (Littlewood, 1984: 66),
- adults' brains are developed enough so they are conscious of the process of learning, which allows them to play an active role and be aware of it; this requires them to analyze the language and put more effort on the learning, contrary to children, whose learning is achieved through "natural process mechanisms", seeing that they are not as attentive to the learning as adults and it does not require them as much effort (Littlewood, 1984: 66).

However, despite the fact that childhood is often recommended as the perfect time to begin with second or foreign language acquisition, the development of their L1 might be affected since they have not become proficient in it yet (Ellis, 2015); they are by some means acquiring two languages at the same time and chances are that these languages function distinctively.

To start with, it is undoubtable that adult learners have the experience of acquiring a language because they already have an L1, so they are more or less aware of the steps that are going to be taken: however, they must bear in mind that not all languages work in the same way so there should not be an overgeneralization of rules of L1 applied to the

L2. But this does not seem to be a problem for them since adults have a more flexible mind when it comes to understand the way a foreign language works.

Some differences between young and adult learners might be that the so-called *silent period* [2] seems to only exist in young learners when acquiring their L1: they do not speak until they have the level of proficiency and confidence to speak. But this period does not seem to exist in adults learning an L2, since sometimes they are encouraged to speak in the classroom in order to practice the language. Since they may not be as prepared or confident enough to use the language, this may cause in them a sense of frustration because they still do not master the L2 (Lightbown & Spada, 2006). Another difference can be found in the exposure, since young learners seem to be more in contact with the language that they are acquiring than adults, whose exposure to the language is *limited* to the learning areas: the exposure where learners are exposed to is connected to the amount of input that they receive in that environment.

3.3.1. Input in Second Language Acquisition

The language environment of a person who is learning a second or foreign language plays a very important role, and this is the reason *input* is one of the most considerable aspects of this topic. Input refers to the amount of language to which a learner is exposed, and this can be oral language, written language or even gestural language. In order to understand how input works in SLA, it is crucial to first make a distinction between three

[2] *The Silent Period of Second Language Acquisition*. Eslbase. (n.d.). https://www.eslbase.com/teaching/silent-period-second-language-acquisition

perspectives of language acquisition since input functions in different ways according to the view: behaviorist, mentalist and interactionist (Ellis, 2008: 243).

The behaviorist perspective (B.F. Skinner) asserts that language acquisition is the result of reinforced imitation, of being exposed to the language and reproduce what is heard. In this view of language acquisition, input functions mainly through this repetition (*stimuli*) and feedback, which must be beneficial and practical for the learner to acquire the language successfully. Thus, what determines a person's language acquisition is the amount of input that they receive, and how often or how much they are exposed to the language in question. Ellis (2008: 243) says that, according to this perspective of language acquisition, input has an active role, and the learners are subordinated to the environment from which they acquire the input. This environment is an external factor, and these learners are "viewed as a passive medium" that only receive the input and whose sole labor is to repeat (Ellis, 2008: 243). This view is commonly associated to the Contrastive Analysis Hypothesis (CAH), where the level of similarity between one's L1 and L2 determines the level of ease with which they acquire a language (Lightbown & Spada, 2006: 35). To further explain this, if a person's L1 is similar to their L2, they will acquire the language easily, but if these languages are not related to each other at all, that person will acquire the language with more difficulty and will commit errors that "are not predictable on the basis of their first language" (Lightbown & Spada, 2006: 35).

Regarding the mentalist perspective, what is most relevant here is that human brains are not a *tabula rasa* when we are born, but they are already programmed with some hidden knowledge. This hidden knowledge will uncover up once the person receives input, which will trigger our "black box" and help the individual to acquire the

language (Ellis, 2008). The aforementioned "black box" refers to the *language acquisition device* (LAD), the hypothetical device in our brains that allow us to easily acquire the grammar of a language. However, according to Ellis (2008), this rationalist perspective does not provide explanations for which input alone should be enough for a person to reach proficiency.

As for the interactionist perspective, this views language development as a combination of cognitive aspect of innatism and the ability to communicate with their environment. The cognitive interactionists in this case see input with a crucial function; however, they also take into consideration that this important function works "within the constraints imposed by learners' internal mechanisms" (Ellis, 2008: 243-244).

To sum up, the behaviorist and interactionist perspectives seem to be the ones that give more importance to input, rather than the rationalist perspective. Nevertheless, if a learner only studies theoretical aspects of a language but is not exposed to this language itself, it will be more difficult for them to sound as natural because they only acquire one side of the language. Yet this side is not sufficient for an individual to perform fluently in their L2. But input must go hand in hand with interaction because receiving information and not performing it may lead to a disorganized speech; it is most convenient for a learner to be exposed to the language and to improve their speech through repetition. Also, the environment to which learners are exposed when acquiring a language should not be the same given the fact that they have different learning strategies and cognitive maturity (Lewis. *et al*., 2021).

3.3.2. Critical Period Hypothesis

Before concentrating on age related to different aspects of language learning, it is worth mentioning and explaining that there are different hypotheses related to this factor. Age influences a person when they are learning, but who learns quicker or *better*? In order to understand critical period in Second Language Acquisition, it is essential to understand how it works for First Language Acquisition.

Penfield and Roberts [3] were the first people who established in their book *Speech and Brain Mechanisms* (1959) a theory that proved the existence of a critical period where the cognitive functions of the human brain develop, since humans are genetically programmed to acquire knowledge before puberty. After puberty, some of these cognitive functions, including language acquisition, become more difficult to accomplish; in other words, children who are not exposed to language during their early years, which are crucial, will never acquire language, or if so, their brains will not capture the knowledge in the same way because of the developing changes in the cognitive system.

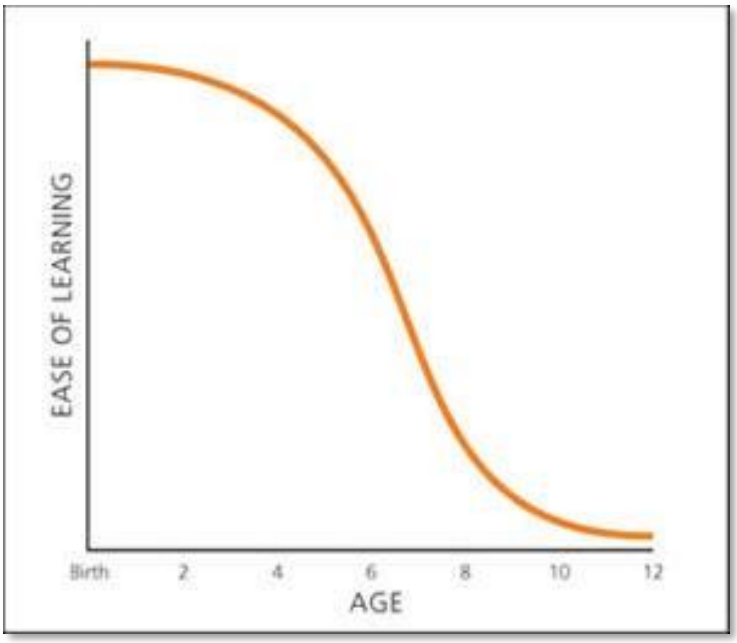
Eric Lenneberg (1967), a Jewish-German linguist and neurologist, initiated a study on language acquisition and innatism related to cognitive psychology. He employed the terminology of "lateralization" [44] to prove that children's brains were more active to acquire knowledge than that of adults. This terminology describes the decrease of plasticity of our brains, and it is said to be the main cause for adults' difficulty when

[3] *History - Critical Period Hypothesis*. Google Sites. (n.d.). https://sites.google.com/site/criticalperiodhypothesis/home/History

[4] *History - Critical Period Hypothesis*. Google Sites. (n.d.). https://sites.google.com/site/criticalperiodhypothesis/home/History

learning a second or foreign language. Babies and children use both hemispheres of the brain when using language, but little by little, this neurological factor of lateralization makes the left hemisphere be the only one in charge of language learning (Syafiyah, 2011: 90).

There are some instances of children who did not have the opportunity to be exposed to the language and ended up in a critical condition, commonly known as *feral children*. One of them and probably the most known is the case of Genie, a girl who was isolated from the outer world and did not have social interaction with anybody except her father for thirteen years. At this time, she barely understood twenty words, which is more than half the words that a two-year-old child knows; this clearly shows that not being exposed to a language during the critical period affects negatively the development of the brain. After this experiment conducted in the 1970s, it has been concluded that, as the following diagram illustrates, the ease of learning decreases after the post-puberty years.



So, the most common and famous hypothesis is the Critical Period Hypothesis. As previously explained, this hypothesis states that when a certain age is reached (puberty), the human brain development changes and a person does not acquire the L1 in the same way. Numerous studies that claim that children learn a second language better than adults is fortified by the Critical Period Hypothesis: just before a person reaches adolescence it is easier for them to acquire the L2, but after that it becomes more difficult. However, this is more and more commonly and frequently perceived as a myth seeing that there have been cases where people start learning a language from an older age and end up speaking native-like English or Spanish, for instance, and clear examples will be seen later on in the paper.

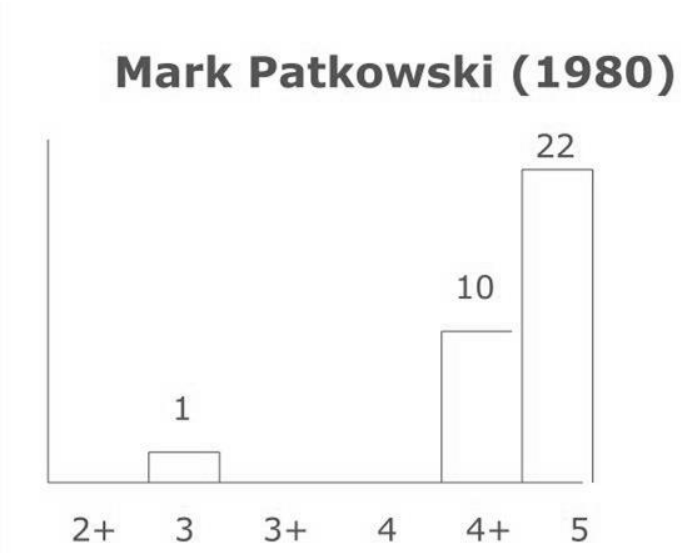
3.3.3. What do nowadays theories say about critical period?

As previously mentioned, the Critical Period Hypothesis affirms that there is an interval in people's lives where the brain absorbs the information successfully, and that once a person reaches puberty, it will be more complicated for them to acquire all type of language learning. However, this is a hypothesis, which means that it might be true or not: there is evidence that proves this theory but there are also theories and evidence that invalidate it.

To support this hypothesis, Mark Patkowski (1980) did a research to prove that learners that have not reached puberty yet were better at learning a second or foreign language than adult learners. This research would test the language that 67 immigrants to the US (that have been living in the country for at least five years) have learnt and compare it to the English of a native-born American. However, this research would not test the aspect of pronunciation given the fact that "the results (of the whole study) would

be affected by accent" (Lightbown & Spada, 2006). Patkowski's research question in his study was the following: "Will there be a difference between learners who began to learn English before puberty and those who began learning English later?"

Patkowski, before starting with his research, already presupposed that those that learnt the language before the age of 15 had more chances to master the native-like language. Was this presupposition true? Indeed, it was. The following table [5] shows that 32 out of 33 students who started learning the language before puberty scored the highest levels (Lightbown & Spada, 2006).



Some factors that he took into account apart from age was the length of residence in the country and the age at which they started learning English, which seemed to somehow foretell whether they would achieve success or not; other factors such as the amount of time they have been learning the language do not seem to affect the learners' success. This actively demonstrates that the age at which they started learning English as

[5] Banyan. (2014, August 28). 英語學習策略技巧分享. SlideServe. https://www.slideserve.com/banyan/3662537

a second language determined the success rather than the amount of time they dedicated to the learning of the language. Patkowski concluded with this study that age of acquisition is in fact important seeing that it determines the mastery of a language, regardless of accent, supporting the Critical Period Hypothesis for Second Language Acquisition.

But, as previously mentioned, the CPH is a mere hypothesis and not all theories and studies will validate it. In order to refute this hypothesis, Catherine Snow and Marian Hoefnagel-Höhle (1978) carried a research study that consisted in assessing several monolingual English-speaking people from different ages learning Dutch in the Netherlands for one year. This project aimed to ascertain to what extent the so-called Critical Period Hypothesis was true through an extensive study involving all aspects of a language: pronunciation, vocabulary, morphology, syntax, reading, and speaking. The participants were divided into three different groups: children (3-10), adolescents (12-15), adults (18-60), and they would all receive the same instruction for the learning of Dutch (Lightbown & Spada, 2006). Apart from these three groups in which they were divided, there was also another segregation between those students who were new in the country and barely comprehend the language (who were tested three times during the year of research) and those students who have been living in the country for at least 18 months and had been more in contact with the language (who were only tested once).

Concerning pronunciation, they were given extensive tests of around 80 words to imitate and assess the phonological aspects. They were also tested through a *wug test*, which consisted in testing the student's capacity to apply morphological rules, to evaluate their capacity to learn how words are formed and how they function in the language. As

for syntax, students would have to demonstrate their ability to identify syntactic mistakes in sentences as well as acquiring more complex rules. In order to acquire lexicon, students were tested though a visual tool (Peabody Picture Vocabulary), and they would have to prove their ability to link images to their respective meaning. And last, but not least, students were tested in reading comprehension and speaking skills by storytelling (Snow & Hoefnagel-Höhle, 1978: 1116-1117).

After all the testing, it was concluded that adolescents* were the most successful learners in all the cases, and that even though children learnt successfully (Snow & Hoefnagel-Höhle, 1978: 1117-1122), adults scored better than children, especially in pronunciation. At the end of the year of learning, children attain the level, and the most difficult tasks for them to achieve were so because they were different to achieve too in their L1. Adults also learn faster because they interact in the second language on a daily basis. To conclude, this study was aimed to confute the presumption that there is an ideal period for people to acquire the language, since adult learners in this case fulfilled a high level of proficiency.

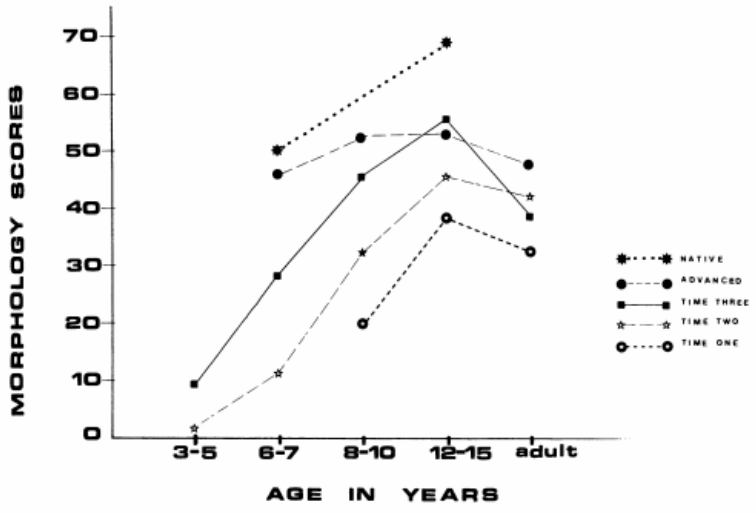


FIG. 3.—Median scores on the Morphology Test

(Snow & Hoefnagel-Höhle, 1978: 1119)

To sum up all that has been explained, there might be research studies and evidence to prove this hypothesis, as well as scientific studies, but studies that disprove such hypotheses are as well necessary to establish that none of the theories is clear-cut and definite.

3.4. Age and consciousness

Having seen what input consists of and its role for language acquisition, the next step would be introducing the aspect of consciousness of the learner when they receive input. Ellis (2015) divides second language acquisition into two different types of explanations regarding age as an influencing factor: the first has to do with cognition and mental perception, whereas the second one is related to emotive perception.

Starting off with the cognitive explanations, young learners are thought to lack metalinguistic awareness and be "not so prone to respond to language as form" (Ellis, 2015), whereas, contrarily, adults easily perceive codes of formality and informality when learning a language. The latter learn *about* a language and how it works, but younger, according to Halliday (1973), perceive language as a function rather than form, which means that they do not go further to analyze the elements of a language. Rosanky (1975) also emphasizes the importance of consciousness of a learner of an L2, as it determines a contrast in the learning by age, for which she divides the progress of the second language learning into two distinct ways.

According to Ellis (2015), young learners are described as *cognitively open* to learn another language seeing that they are not aware of the process: they barely use social interactions with the language, as opposed to the heavy social contact of an adult

concerning the use of L1 and L2. Also, referring to the cognition, adults are said to be *cognitively closed* since it is not as easy for them to acquire a second language in the way they acquired their natural L1: they are conscious when learning their L2, they play an active role, and the process becomes more difficult (Ellis, 2015). Then it could be said that awareness is connected to age, and that if a person is conscious about their learning, there is a repression of natural learning. However, the fact that it becomes difficult for adults to acquire their L2 does not mean that it is impossible; in fact, they outperform young learners because they understand what they are learning, and they have the ability to analyze the language better.

Based on these theories, the conclusion drawn as to the existence of the critical period is that it does not exist as such since adults, in this case, acquire language even better. Meta-awareness seems to be a device that favors the learning, and as adults are aware of it, they succeed more than children. However, there is still the issue of pronunciation, which does not seem to advance.

3.5. Age and "culture"

Children's high motivation to learn another language and eagerness to sound native-like is what probably makes them acquire the language faster in the majority of the cases. However, native-like mastery in an L2 might not be the goal of every individual learning a second or foreign language. Apart from theoretical aspects of a language itself (vocabulary, grammar, pronunciation…), there are other external features of a language that may help learners to acquire the language faster or may hinder this learning.

Referring back to the type of explanation in regard to age as an influencing factor, this section will mainly cover the explanations related to emotions. Brown (1980b) divides the learning of an L2 process into four stages (SLA related to the ability of the learner to relate and respond easily to the foreign language culture). First, the learner goes through a phase of enthusiasm, which awakens in them a feeling of wanting to learn more and more, after this they start to feel hostile towards the culture of the L2, then they feel fear or stress because they assume that by acquiring an L2, they are acquiring its culture too, and finally they assimilate this new culture. Young learners are thought to quickly adapt to the culture considering that they still do not have an affiliation with their own. As adult learners already have a bond with their particular culture, it is often more difficult for them to be adapted to the L2 culture. And culture, in fact, is relevant for the acquisition of a language because it helps the learner to feel more attached to the language in which they are interested.

Neufeld (1978)'s explanation about the relationship between affective factors and age differences in SLA is more reasonable. He segregates language into two levels, each concerning the information that learners acquire from a language. The first level, or primary level, is acquired before being born, so both children and adults already own it. This level includes vocabulary, basic grammatical rules, and command of pronunciation aspect. Regarding secondary level, it is acquired quicker by children thanks to their motivation since they wish to become part of their L1 community. This level includes the acquisition of more advanced and complex grammatical structures (Ellis, 2015).

Referring back to young learners' desire to accomplish the accent of the L2, some adult learners might have some issues with pronunciation but prefer to keep their foreign

accent because of the bound they have with their own culture. To illustrate, when an immigrant is learning the language spoken in the country they are living, they may find some cultural aspects difficult to understand and to adapt, which may make it more challenging for them to be immersed in society (Lightbown & Spada, 2006). This does not seem to be a problem for their children, for instance, who still do not have that great attachment with their L1 culture and community.

3.6. Age and pronunciation

Related to pronunciation of one's L2 is James Emil Flege's theory known as *Speech Learning Model*, a system whose aim consists of constituting the learners' ability to master the production of vowels and consonants in the L2. There are five main assumptions upon which this model is based, which are the following (Flege, 2005):

1. if exposed to a big amount of input, the L2 learner can manage to precisely identify the "phonetic properties of L2",
2. the learner needs time and input in order to acquire the characteristics of the phonetic traits,
3. "production is guided by perceptual representations stored in long-term memory",
4. the procedure used to successfully acquire L1 pronunciation are not affected when acquiring L2 pronunciation, and
5. the elements that constitute the L1 and L2 are influenced one by another.

This *Speech Learning Model* first divided (1984-1993) the sounds of the L2 pronunciation aspects into three types, from more to less challenging: new, similar, and same; however, in 1994 this classification was dropped (Flege, 2005). New sounds would be those that

do not occupy a space in the L1 sound imaginary diagram (e.g. /ə/ would be a *new* category for a Spanish person learning English); similar sounds would be the ones that share some characteristics with those of one's L1 but are not identical (e.g. /ʊ/ would be a *similar* category for a Spanish person learning English); whereas same sounds refer to those that are exactly the same in both languages (e.g. /i/ would be a *same* sound for a Spanish person learning English).

Flege (2005) also suggests three hypotheses related to the creation of different sound categories as a result of a learner acquiring the phonetic characteristics of their L2:

1. there are more chances for a new category for an L2 sound to be created if the contrast between an L1 and L2 sounds is big,
2. for children learning an L2, it is less probable for them to form a new category since sounds of their L1 are still being elaborated, and
3. what becomes known as "merged L1-L2" will be created out of an assimilation between two very similar sounds of both languages; since they are almost identical, there is no need for a new category to be created.

This model is closely related to the *CPH* since it claims that it is relevant to consider the age at which learners start to be exposed to the target language (Flege & Bohn, 2021: 14), meaning that the younger somebody starts to receive input on the L2 sounds, the better and easier it will be for them to acquire it.

As mentioned in the introduction, the pronunciation is the aspect of language learning with which adult learners have most problems. However, that is not the greater concern for adults because they might not be seeking to achieve a native-like accent. As mentioned in the previous section, this is true for children, who are in effect eager to

sound as a native and eventually achieve the native-like accent since they are more exposed and receive more input from their L2. Moreover, young learners are thought to be better at acquiring pronunciation, and this is where Universal Grammar might be introduced. These young learners, especially babies and infants, have the capacity to recognize and are ready to imitate the sounds of all the languages existing, until they reach puberty.

The aspect of language that is taken more into consideration when learning a second language and affected negatively by the Critical Period Hypothesis is the pronunciation. To illustrate, a Spanish person may start learning English at the age of thirty, which is obviously later than the critical period. So, this person in a few months or years may learn all the rules of English, understand how the language works, the syntax, the semantics, even the pragmatics, vocabulary… but may lack pronunciation. This may make this person one who has not successfully reached the learning of the language. However, if what is needed to be taken into consideration is the learning of the language, then this person has done so successfully, because they can easily communicate. So why do we keep focusing on pronunciation? Of course it is important, but not the most important aspect of language; in order to communicate effectively to make yourself understood by others, other aspects must be taken into account.

To illustrate, there are numerous celebrities (singers, actors, models…) whose L1 is not English but had to learn the language as a second/foreign language at an advanced age in order to succeed in the country they are living. Some examples are Penelope Cruz

or Salma Hayek [6]; both these Hollywood actors have made it in the world of television and cinema and are considered two of the elites. However, even though they perform roles in English, their Spanish accent is highly marked; but this did not prevent them from succeeding, and they achieved a level of proficiency in a language that is not their L1. Thus, these examples prove that pronunciation may not be that big of an issue as long as the person manages the language itself.

However, there are other cases of non-English-speaking people who learnt the language later in their lives and achieved proficiency in the accent, as is the case of the Austrian actor Arnold Schwarzenegger [7] and the Spanish actor Antonio Banderas [8]. What these two cases confirm is that age is not an inconvenient when trying to obtain the aspect of pronunciation, and compared to the aforementioned actors, the four of them have succeeded in stardom and reached proficiency in English language, regardless of their accents.

Another example are families that migrate to a different language speaking country. As previously explained, Littlewood (1984) stated that children are thought to end up being fluent in the language of the country they are living in (dominant language)

[6] Veronique Laurent (2018, January 13). *Salma Hayek and Penelope Cruz fight scene from "Bandidas"*. YouTube. https://www.youtube.com/watch?v=kleBqFUKYt4&ab_channel=VeroniqueLaurentVeroniqueLaurent.

[7] The Tonight Show Starring Jimmy Fallon. (2014, March 25) *Arnold Schwarzenegger Crushes Things with Tanks.* YouTube https://www.youtube.com/watch?v=6njdZO_sCcI&ab_channel=TheTonightShowStarringJimmyFallonTheTonightShowStarringJimmyFallonVerificada

[8] The Late Show with Stephen Colbert. (2020, January 29). *Antonio Banderas: Your Heart Is A Warehouse For Feelings.* YouTube https://www.youtube.com/watch?v=CxdpN50XiVE&ab_channel=TheLateShowwithStephenColbertTheLateShowwithStephenColbertVerificada.&ab_channel=TheLateShowwithStephenColbert

because they learn in better conditions and are enthusiastic about becoming part of the target community, whereas their parents or the grownups do not achieve the same level of proficiency, or at least, in the pronunciation, which tends to be affected by their L1 pronunciation.

4. Discussion

In order to resolve the first research question, the conclusion drawn is that pronunciation seems to be a concern mainly for young learners than for adults, and that might be the reason they achieve the native-like accent: because they are so focused on sounding like the natives that they put a lot of effort in it, not as adults, who consider other aspects more important than the pronunciation. In relation to age, not all adult learners are affected by their native language phonologically, as it could be seen with the examples of Arnold Schwarzenegger and Antonio Banderas, who learnt English when they were already adults and achieved an almost proficient level as for pronunciation.

With a view to solve the second research question, consciousness and culture of the target language were chosen to be analyzed in connection to young and adult learners: who do they affect positively and negatively? Concerning consciousness (as in whether the learner is cognitively receptive or not to the learning of the language), for young learners second or foreign language acquisition appears to be more difficult because, even though it does not require them much effort seeing that they acquire it unconsciously, awareness of the process favors the learning. This means that adults, being conscious of the process, understand and analyze the language better.

As for the culture of the target language, this may not seem that relevant at first sight, but in fact it helps learners to acquire metalinguistic concepts, which are the most challenging features of language acquisition. Contrarily to consciousness, culture affects young learners positively because they still have not been adapted to their L1 culture, and it is easier for them to cultivate the culture of their L2. However, for adult learners this aspect plays a negative role in them because they are already completely adapted to their own culture, and they may perceive the target language and its culture as adversarial.

5. Conclusion

To sum up everything that has been explained so far, when young learners are said to be "better learners", what is taken into account are mainly their high motivation and their undeveloped brain (which does not mean that it is not developed, but less than adults'). As for adult learners, they are thought to be faster at learning the majority of the aspects of a language, probably because of their cognitive maturity and experience. There is no specific age for which a second language should be acquired; however, according to some hypotheses and studies, it is better that a person acquires this language at a young age since they receive more input, and their brains capture information and knowledge easily.

However, there should not be any overgeneralization since these characterizations may not apply to all learners. Adults are thought to learn a language faster, but this may not apply to all adults. As for pronunciation, children/young learners are thought to achieve a better pronunciation, but this does not mean that it is impossible for adult learners to achieve this native-like accent. Overgeneralizing causes misunderstandings: there is obviously evidence supporting that children surpass adults in second or foreign language acquisition, but this assertion should not be definite since we should not take

into account the factor of age alone. Regardless of the age, if a person is motivated, they are going to surpass every barrier that prevents them from learning. Thus, a person should never think or say that they are *too old* to learn a language.

To conclude this research paper, the field of applied linguistics was created in the 20th century, and from the point of view of research, this is still a young field of study. So, despite all the information that could be gathered, further research is needed.

6. References

At what age does our ability to learn a new language like a native speaker diminishes? (n.d.). Retrieved April 1st, 2021, from https://www.quora.com/At-what-age-does-our-ability-to-learn-a-new-language-like-a-native-speaker-diminishes

Banyan. (2014, August 28). 英語學習策略技巧分享. SlideServe. https://www.slideserve.com/banyan/3662537

Blank, S. C. *et al.* (2002) *Speech Production: Wernicke, Broca and beyond.* Volume 125, Issue 8, Pages 1829–1838.

Cherry, K. (2021, February 3). *How Brain Neurons Change Over Time From Life Experience*. Verywell Mind. https://www.verywellmind.com/what-is-brain-plasticity-2794886.

Devlin, K. (2021, March 13). *Learning a foreign language a 'must' in Europe, not so in America*. Pew Research Center. Retrieved April 30th, 2021

https://www.pewresearch.org/fact-tank/2015/07/13/learning-a-foreign-language-a-must-in-europe-not-so-in-america/

Ellis, R. (2008). *The study of second language acquisition*. Oxford University Press.

Ellis, R. (2015). *Understanding second language acquisition.* Oxford University Press. (UNIT 5: Individual learner differences and Second Language Acquisition)

Experts, K. H. M. (Ed.). (n.d.). *Magnetic Resonance Imaging (MRI): Brain (for Parents) - Nemours KidsHealth*. KidsHealth. https://kidshealth.org/en/parents/mri-brain.html#:~:text=Magnetic%20resonance%20imaging%20(MRI)%20of,it%20does%20not%20use%20radiation

Field-independent learners. TeachingEnglish. (n.d.). Retrieved May 30th 2021 https://bit.ly/2SnMcEq

Flege, J. E. (2005) *Origins and development of the Speech Learning Model** Univ. of Alabama at Birmingham. Retrieved May 30th 2021 http://www.jimflege.com/files/SLMvancouver_updated.pdf

Flege, J.E. & Bohn, O.S. (2021) *The revised Speech Learning Model (SLM-r)* *https://www.researchgate.net/publication/348265785_The_revised_Speech_Learning_Model_SLM-r*

History - Critical Period Hypothesis. Google Sites. (n.d.). https://sites.google.com/site/criticalperiodhypothesis/home/History.

Hoque, Md. (2017). An Introduction to the Second Language Acquisition. https://www.researchgate.net/publication/335690866_An_Introduction_to_the_Second_Language_Acquisition

Hu, R. (n.d.) *The Age Factor in Second Language Learning.* Retrieved May 30th 2021 https://core.ac.uk/download/pdf/266995226.pdf

Human aging. (n.d.). Retrieved April 3rd, 2021, from https://www.britannica.com/science/human-aging

Language Aptitude. TeachingEnglish | British Council | BBC. (n.d.). Retrieved May 16th 2021 https://www.teachingenglish.org.uk/article/language-aptitude

Le, T. (n.d.). *The influence of age on sla in terms of route.* Retrieved April 1st, 2021, from https://es.slideshare.net/thanhthaole/the-influence-of-age-on-sla-in-terms-of-route

Lewis, B. *et al*. (2021, March 15). *Why adults are better learners than kids (So NO, you're not too old)*. Fluent in 3 months - Language Hacking and Travel Tips. https://www.fluentin3months.com/adults-vs-kids/

Lightbown, P. M., & Spada, N. (2006). How languages are learned. Oxford University Press. (UNIT 2: Explaining Second Language Learning)

Lightbown, P. M., & Spada, N. (2006). How languages are learned. Oxford University Press. (UNIT 3: Factors Affecting Second Language Learning)

Littlewood, W. (1984) *Foreign and Second Language Learning: Language Acquisition Research and its Implications for the Classroom*. Cambridge University Press

Nikolov, M. (2006). *Recent research on age, second language acquisition, and early foreign language learning.* Annual Review of Applied Linguistics. 26. 234 - 260.

Palea, L.L. & Boştină-Bratu, S. (n.d.) *AGE AND ITS INFLUENCE ON SECOND LANGUAGE ACQUISITION* Retrieved May 27th 2021 https://www.armyacademy.ro/reviste/rev4_2015/Palea.pdf

Parent Co. (n.d.). *The Best Age for Kids to Learn a Second Language*. Parent Co. Retrieved May 28th 2021 *https://www.parent.com/blogs/conversations/the-best-age-for-kids-to-learn-a-second-language#:~:text=Research%20has%20shown%20that%2050,they%20are%208%20years%20old*.

Sharp, A. (2008) *Personality and Second Language Learning.* Retrieved June 2nd 2021 http://kb.psu.ac.th:8080/psukb/bitstream/2010/6035/12/Appendix2.pdf#page=19

Singleton, O. (2004). Language Acquisition: The Age Factor (2nd Edition) (2nd ed.). Multilingual Matters Limited.

Snow, C. E., & Hoefnagel-Höhle Marian. (1978). *The critical period for language acquisition: evidence from second-language learning*. Univ. of Amsterdam, Inst. for General Linguistics.

Syafiyah, Syafiyah. (2011). *ARE CHILDREN BETTER AT LEARNING LANGUAGES THAN ADULTS?* Fakultas Humaniora dan Budaya, Universitas Islam Negeri

(UIN) Malang https://www.researchgate.net/publication/284645217_ARE_CHILDREN_BETTER_AT_LEARNING_LANGUAGES_THAN_ADULTS

T. (2017). *The age factor in second language acquisition*. Terminology Coordination Unit.

Termcoord. (2017, May 03). *The age factor in second language acquisition.* Retrieved April 04, 2021, from https://termcoord.eu/2017/05/age-factor-second-language-acquisition/

The Impact of Exposure to English Language on Language ... (n.d.). Retrieved May 29th 2021 https://www.researchgate.net/profile/Samer-Al-Zoubi/publication/328492845_The_Impact_of_Exposure_to_English_Language_on_Language_Acquisition/links/5bd0f8aca6fdcc6f7900374e/The-Impact-of-Exposure-to-English-Language-on-Language-Acquisition.pdf

The Critical Period for Language Acquisition: Evidence from Second Language Learning CATHERINE E. SNOW AND MARIAN HOEFNAGEL-HÖHLE UNIVERSITY OF AMSTERDAM. - ppt download. SlidePlayer. (n.d.). Retrieved June 4th 2021 https://slideplayer.com/slide/8866765/

The Late Show with Stephen Colbert. (2020, January 29). *Antonio Banderas: Your Heart Is A Warehouse For Feelings.* YouTube https://www.youtube.com/watch?v=CxdpN50XiVE&ab_channel=TheLateShowwithStephenColbertTheLateShowwithStephenColbertVerificada.&ab_channel=TheLateShowwithStephenColbert

The Silent Period of Second Language Acquisition. Eslbase. (n.d.). https://www.eslbase.com/teaching/silent-period-second-language-acquisition.

The Tonight Show Starring Jimmy Fallon. (2014, March 25) *Arnold Schwarzenegger Crushes Things with Tanks.* YouTube https://www.youtube.com/watch?v=6njdZO_sCcI&ab_channel=TheTonightShowStarringJimmyFallonTheTonightShowStarringJimmyFallonVerificada

Veronique Laurent (2018, January 13). *Salma Hayek and Penelope Cruz fight scene from "Bandidas"*. YouTube. https://www.youtube.com/watch?v=kleBqFUKYt4&ab_channel=VeroniqueLaurentVeroniqueLaurent.

What is Speech Learning Model. IGI Global. (n.d.). Retrieved June 2nd 2021 https://www.igi-global.com/dictionary/speech-learning-model/56245.

Why children learn better. Vivaling. (2020, September 16). https://vivaling.com/en/why-children-learn-better/

Wug test. Psychology Wiki. (n.d.). Retrieved June 2nd 2021 https://psychology.wikia.org/wiki/Wug_test