



***Factors Influencing Language
Attrition/Maintenance among Students of English
at Abou Bekr Belkaid University-Tlemcen***

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Abstract

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This research aims at investigating the factors influencing attrition/maintenance of French among students of English as a foreign language. The data were collected through interviews and questionnaires that were administered to students of English in Abou Bekr Belkaid University of Tlemcen, Algeria. The questionnaire and the interviews were adapted from Monika S. Schmid's research manual "The Language Attrition Test Battery." A group of forty-two students was examined, twenty of them are majoring in the first year of Licence (L1) from the LMD system, the remaining twenty-two are Master students. The data were analyzed by means of SPSS.

The main findings show that most students have positive attitudes towards Arabic and towards foreign languages and that they still have contact with French through the media. Their language choice depends on the setting. Language contact appears to be the main factor that impacts foreign language attrition/maintenance.

(Kohnert, Bates, & Hernandez, 1999; McElree, Jia, & Litvak, 2000; Yeni-Komshian, Flege, & Liu, 2000).

In the past 70 years, linguists, neurolinguists and psychologists have tried to bring evidence that some kinds of brain damage result in language skill loss (Googlass, Berko-Gleason & Hyde, 1970; Luria, 1970)

Yet, brain damage is an exceptional condition and aphasia an utmost case of language attrition. What is more noticeable is language attrition resulting from the disuse of a language either because of discontinuity of the acquisition of learning or because of the absence of the use of a language for people who move to a new language community as it is the case for immigrants. Hence, a speaker may acquire skills in a second language and lose his native one (1st language attrition) even though he was fluent for many years. In contrast, a speaker may learn a second language in another country or with the community who uses that language and lose it after having native-like competences unless he/she remains using it. (Hansen & Reetz-Kurashige, 1999; Hansen, 1983)

The same thing occurs with foreign language learning (Al-Hazemi, 2000; Bahrack, 1993; Cohen, 1986; de Bot & Weltens, 1995)

The major advance in research on cases of language in healthy people in recent years has emphasised on the decline in specific skill aspects of the language altered; it also dealt with the psycholinguistic processes and sociolinguistic circumstances which lead to such change. (Hansen, 1999; Seliger & Vago, 1991; Weltens, de Bot, & van Els, 1986). The study of language attrition cannot be separated from the social context in which the speaker's language is witnessing change. De Bot Gommans, & Rossing, 1991 say that time alone cannot explain decline in skills, it is the lack of language contact and use during that period which engenders the change. According to de Bot (2001: 70) "the key to language loss is limited input/intake, on the one hand, and limited output, on the other".

Thus, language attrition is the progressive loss or decline of language knowledge and skills in an individual. It is defined as "a non-pathological decrease in proficiency in a language that had previously been acquired by an individual" (Kopke & Schmid, 2004: 3) .This definition clearly delineates the meaning of the

1. Introduction

The study of language attrition in individuals has grown into a thriving branch of applied linguistics. (Ammerlaan, Hulsen, Strating, & Yagmur, 2001; de Bot, 1996; de Bot & Weltens, 1995). Individual language attrition may contribute to language change at the community level and global scale. (Meisel, 2001; Seliger, 1996). In a world characterised by globalisation and migration, certain languages are growing in popularity as first (L1) and second languages (L2), while others (typically the L1 of minorities) and dialects are declining and in danger of becoming lost. (Crystal, 2000; Dorian, 1989; Grenoble & Whaley, 1998). Individual speakers' knowledge and use of language(s) is in constant motion. It is dynamic and prone to change, owing to the acquisition of (new) language structures as well as the attrition / loss of (obsolete) structures. (Herdina & Jessner, 2002).

Thus, in the present study we attempted to investigate the factors influencing attrition/maintenance of French among students of English as a foreign language in the light of questions that were adapted from "The Language Attrition Best battery, a research manual designed by Monika S. Schmid.

2. Theoretical Background

Whereas the development of language skills has long been examined scientifically, the deterioration of language skills has only been examined systematically for roughly 20 years, largely by applied linguists. (Hansen, 2001; Seliger & Vago, 1991; Weltens, 1987; Weltens & Cohen, 1989). Only a few research have looked into language attrition in relation to psychological or psycholinguistic theories (Ammerlaan, 1996; de Bot, 1999; de Bot & Stoessel, 2000; Kenny, 1996; Pan & Berko Gleason, 1986).. Psychological research on the remembering and forgetting of verbal and nonverbal information, on the other hand, have paid little or no attention to the forgetting of language in healthy persons over the lifetime (Golding & MacLeod, 1998; Schacter, 1996). However, psychologists and speech scientists are becoming increasingly interested in the subjects of bilingualism and language attrition

term as it is presently used in the field, and the use of the term "non-pathological" underlines the fact that the decrease in proficiency is caused by a change in one's contact with the language(s) in question, rather than by illness or deterioration or damage to the brain. This definition also emphasises that the attrition phenomenon occurs in individuals rather than in groups or speech communities.

Language attrition may be understood in terms of language acquisition, which may be defined as the process of increasing one's proficiency in a first or second language. Language attrition occurs when there is a lack of interaction with a language, resulting in lower levels of competency in the attriting language.

The attriter, or person experiencing attrition, is often a bilingual or multilingual individual whose L1 is being replaced by an L2, or whose L2 is being replaced by the L1. It is conceivable for monolingual speakers to lose their first and only language in an L1 context; this can occur as a result of normal ageing processes or as a result of an abnormal or pathological case of language deterioration, such as aphasia or agnosia.

The content of attrition, i.e. what is truly lost, or which elements of the language system are most prone to attrition, is an important issue in language attrition research. Several studies on the content of language attrition have focused on language skills rather than linguistic knowledge. Generally, findings demonstrate that receptive skills (reading and listening) are better retained than productive skills (i.e. speaking and writing). Oral fluency seems to be more prone to attrition and is frequently seen as the prelude to the onset of language attrition. Similarly, studies have found that receptive vocabulary and grammar are more inclined to be retained than productive vocabulary and grammar. The most common signs of lexical attrition are difficulties with lexical access and forgetting unused vocabulary. According to the findings, words that appear less frequently or are longer are more subject to attrition. In contrast, some types of lexical entries, including formulae, traditional expressions, idioms, and social fillers, have been found to be better retained than others (see Berman & Olshtain, 1983).

There are various linguistic and extralinguistic factors that impact language attrition, often known as criterion variables and predictor variables in

previous terminology. (Lambert & Freed, 1982). The language variables are mostly concerned with language content and process.

Various attempts, for instance, have been made to clearly define the linguistic characteristics most vulnerable to loss and how the substitute language effects the attrited one.

Extralinguistic factors refer to additional variables that impact the extent and quality of attrition, such as the attriter's age at the onset of the acquisition of the replacing language, attitudes and motivation, literacy in the attriting language, and contact with other languages.

3. Types of attrition: L1 attrition, non-L1 attrition, foreign language attrition

Since the establishment of language attrition as an independent field of study, the majority of studies have focused on L1 attrition in an L2 environment, often the attrition of (bilingual) immigrants' first or native language after migration. Research on L1 attrition differs from research on "L2 attrition," which refers to all languages learned or acquired after (early) childhood, generally in combination to the L1. While we consider this distinction between L1 and non-L1 to be a good starting point, the broad use of the term "L2" or "second language" to refer to any language that does not fall into the category of "L1" is problematic since it may be taken to mean that, by and large, all L2s are equal and can be considered as such.

Attrition studies frequently provide no indication as to whether this "L2" is one of just two languages in the individual's repertoire, or whether there are three, four, or more languages involved. This implies that there is no meaningful distinction between strictly bilingual and tri-/multilingual settings. More recent research tends to correct this deficiency, and researchers commonly number individuals' languages as L2, L3, L4... Ln to show the chronology of acquisition, with the term "L3" increasingly acting as abbreviation for any language beyond the second. However, beyond the acquisition chronology, we frequently have little or no information on any systematic classification of different kinds of non-L1s. despite the fact that they might vary greatly in terms of age of onset, length and manner of acquisition, quantity of exposure and use, dominance, and so on, especially in multilingual contexts.

4. The Activation Threshold Hypothesis (Paradis) and The Dynamic Model of Multilingualism (DMM) (Herdina and Jessner 2002; Jessner 2003)

The Activation Threshold Hypothesis was formulated by Paradis (2001; 2004;2007) as part of a neurolinguistic approach to bilingualism. This hypothesis states that the forms or languages which the speaker uses recurrently are activated, whereas those less often used are

inhibited. Inhibition of a form or language raises what is considered its 'activation threshold'. Forms and languages with a high activation threshold are thought to be more difficult to reactivate. If an item is used frequently, its threshold is constantly lowered, making retrieval ever faster and less effortful. In situations where two similar forms in two different languages are in competition, while the item in the language more frequently used is activated the item with a low frequency is inhibited and according to this hypothesis, the latter form will be more prone to attrition. So, attrition is seen as inhibition of a linguistic form, and in order to be retrieved effortlessly, an item needs to exceed a specific activation threshold. When there is no competing form, there is no frequency-induced inhibition. Items may be phonological, lexical or any other type, and since retrieval procedures are not related to linguistic distinctions this would explain why language attrition may potentially occur at all linguistic levels.

In 1993, Paradis said that "A differential activation threshold can also account for dissociations between comprehension and production in first and second language acquisition, language attrition, and amnesic aphasia." (Paradis 1993: 139 cited in Opitz, 2011).

In 1001, he adds that "The hypothesis may account for recency and frequency effects, and priming phenomena, as well as language attrition." (Paradis 2001: 12)

The Dynamic Model of Multilingualism (DMM) (Herdina and Jessner 2002; Jessner 2003).

The basis of The Dynamic Model of Multilingualism (DMM) complex systems theory, in addition to a dynamic trait to the concept of "multi-competence" developed by Cook (2003). The model assumes that "there are natural cognitive and psychological limits to every multilingual system" although disagreeing with

the notion of a "specific limitedness of the language capacity" implied in balance theory (Herdina and Jessner 2002: 28).

That is, languages are not merely "co-existing peacefully" in the mind of a multilingual speaker but are actually in "competition" with reference to the quantity of language effort required. A speaker needs language acquisition and maintenance effort so he/she needs efforts to learn a language and to keep it at a specific proficiency. So, we can distinguish General language effort (GLE), Language acquisition effort (LAE) and Language maintenance effort (LME). Therefore, "Language proficiency in this conception is defined as a learner's ability to use internalised knowledge (competence) for different tasks "(Herdina and Jessner 2002: 56 cited in Opitz 2011: 42).

Jessner 2003 explains that maintaining a similar proficiency in two or more language systems is more than twice as laborious as the fact of maintaining only one language because

"the multilingual brain is constantly involved in processes of matching and differentiation of two or more language systems. Maintenance work in multilinguals also involves metalinguistic and monitoring processes in order to reduce interference as a processing phenomenon and to ensure a certain speed of recall of information among other aspects. Psycholinguistic systems containing two or more language systems can therefore be seen as less stable than monolingual ones, and repair or reactivation procedures are constantly required to maintain the system in a steady state." (Jessner 2003: 241)

That is, because their minds are more complex, multilinguals are required to invest a higher amount of effort in maintaining their languages than monolinguals. The model also states that maintenance effort rises non-linearly (second order exponential growth) as a function of language proficiency, and that it must surpass linguistic development.

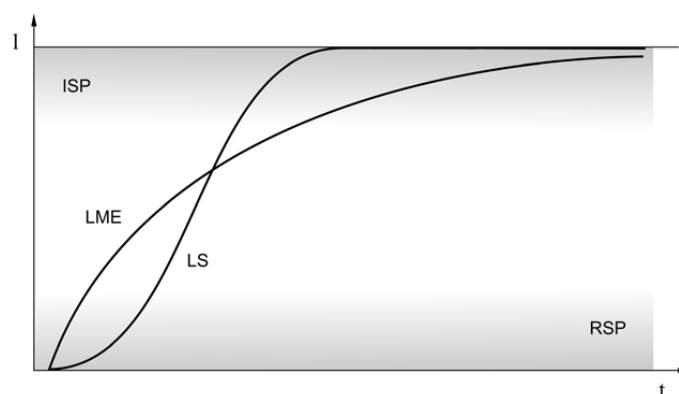
For a monolingual living in his or her home country, this is not a problem – although L1 proficiency is normally close to 100% and thus should require the maximum level of maintenance, the input naturally present and the time spent exposed to this input is normally perfectly adequate, so that people are not even aware they are engaging in language maintenance effort. If a person does know another language to a moderate level and is not keen to improve it, the

maintenance effort required for this language should normally also be manageable, although most people experience a "rusting" of foreign language skills once they are no longer trying to learn the language or use the skills (lack of maintenance).

Although L1 proficiency is typically near to 100 percent and so should need the highest degree of maintenance, so for a monolingual living in their homeland, this is not a problem, the input naturally present and the time spent exposed to this input is normally completely enough, so that individuals are not even aware they are participating in language maintenance effort. On the other hand, if the individual knows another language to a modest degree and is not interested in improving it, the maintenance effort necessary for this language should be feasible as well. Yet, most speakers witness a "rusting" of their skills in the foreign language since they do not remain using or learning it.

When a person wishes to enhance his/her proficiency level in a second language (L2), the language acquisition effort will be larger than the language maintenance effort necessary to retain this language at the level reached by the person. The advanced this level, the bigger the needed maintenance effort, which, as previously stated, is expected to rise at the rate of second-order exponential growth.

If an L2 user wants to maintain two or more languages at very high proficiency levels at the same time, the required maintenance effort will quickly result in competition for the available resources, i.e., the amount of time and energy learners are willing and able to invest on maintaining/learning their languages, the necessary maintenance effort is supposed to «soon exceed" (Herdina and Jessner 2002: 113).



LS = language system; LME = language maintenance effort;
ISP = ideal native speaker proficiency;
RSP = rudimentary speaker proficiency; t = time; l = language level

Figure 1

Ideal learning curve related to LME

Source:(Herdina and Jessner 2002: 113)

As negative language development is regarded as the reversal of language acquisition, the effort involved to retain languages at a certain degree reduces in an exceptional manner, thus a slight reduction equals investing more efforts.

Language attrition, defined as "a function of language acquisition, with language maintenance providing the necessary link between the two processes" (Herdina and Jessner 2002: 106), is then a 'key feature' in multilingual systems" (Jessner 2003: 236).

In a dynamic model, positive and negative growth processes can be reversed at any moment. However, the model suggests that if enough maintenance effort is not available, the language system would eventually regress to a monolingual state.

Re-learning and Re-exposure are a type of language maintenance effort and should help in recovering rapidly portions of the language systems that have been forgotten. Furthermore, the L2 speaker can use specific defensive strategies for language maintenance work. These techniques greatly differ from one individual to another, and p also in their efficiency. They are natural to a lot of people, can be subconscious or explicit meta-cognitive strategies and include anything from checking the spelling of a word in a dictionary, checking grammar, to asking a native speaker about the appropriateness of expressions or other. According to Harley (1994: 708) "these mainly metacognitive strategies to retain a language can be broadly categorised in the same

way as language learning strategies". However, "most important is the simple fact that use of language counteracts language loss or decay" (Herdina and Jessner 2002: 98). This was also stated by Hyltenstam and Stroud (1996: 568): "The notion of language maintenance is meaningful only in relation to its sister concept of language loss."

In sum, "In DMM it is [...] assumed that neither language acquisition nor language attrition can adequately be understood if they are discussed as processes in isolation [...]. The two processes have to be seen as an integrated part of an evolving dynamic system, in other words language attrition is a function of language acquisition." (Jessner 2003: 242)

5. Results and discussion

5.1. Overall Design of the Study

The present study consists of the analysis of a self-reported questionnaire combined with a semi-structured interview which aims at shedding light on the extra-linguistic factors that influence attrition, the questions are adapted from "The Language Attrition Test Battery", a research manual designed by Monika S. Schmid

5.2. Participants

The sample group consists of 42 Algerian students of English as a foreign among whom 22 are Master students and the remaining 20 are first year Licence students, all of them from Abou Bekr Belkaid University of Tlemcen.

5.3. Instruments and Data Analysis

In order to collect data, the informants were asked 13 questions. We began by inquiring about their age, gender, and educational background. To determine interaction with MSA, French, or English, they were questioned about the age of their first contact with these languages, i.e., if it occurred before they started school; then, one of the questions was regarding their parents' use of foreign languages at home. The following one looked into their language preferences and interactions with languages; for example, we asked them which languages they like to watch television in, read newspapers in, and surf the web in.... One of the questions concerned the language(s) they used in their daily conversations, both at home and at university. The following questions intend to check their attitudes towards foreign languages and towards Modern Standard Arabic (MSA) and the contact with these languages.

-Do you like these languages? Arabic, French and English.

- Learning these languages is a waste of time? Arabic, English.

-What is the language with which you feel more comfortable or that you use effortlessly?

We explored the language used by the informants while dreaming and counting through interviews. They were also asked about their dominant language, which is the one with which they are most comfortable. We asked them about the language/country with which they identify the most, the language with which they express strong emotions, and how they felt about someone who spoke a foreign language with a heavy accent. The purpose is to use the findings in future study to determine the impact of interaction and attitudes on language attrition and maintenance..

In the following part, the graphs of the results are analysed according to the different factors.

Language Contact

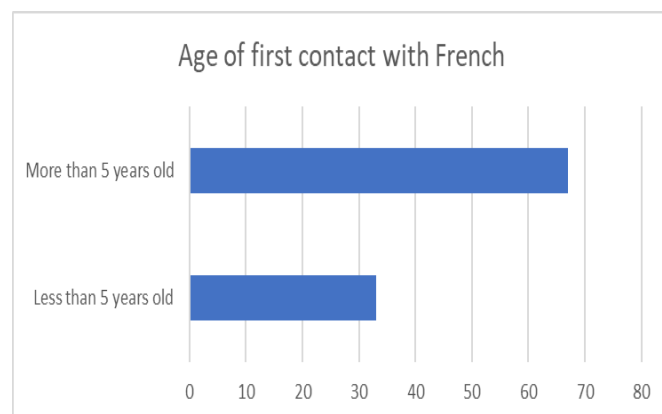


Figure 2

Age of first contact with French

The graph depicts the age of first contact with the French language. As can be seen, the vast majority were over the age of five when they had their first contact with French. This could indicate that their parents do not communicate in French at home. Less than 35% of respondents were exposed to French before the age of five, which could indicate that their parents speak French at home or that they were exposed to French through television.

Figure 3

Use of French at home as a child

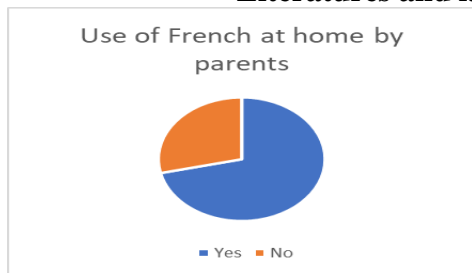


Figure 4
Use of French at home by parents

According to the two pie charts above, the vast majority of the informants' parents speak French at home, and nearly half of them spoke French at home when they were growing up. So, even if parents speak French at home, it does not appear to be a requirement for children to do so. This could be related to the fact that some children live in the same house as their grandparents, which could influence their behavior. Contact with the language through parents is not the sole factor; children may also be exposed to different languages via television, for instance.

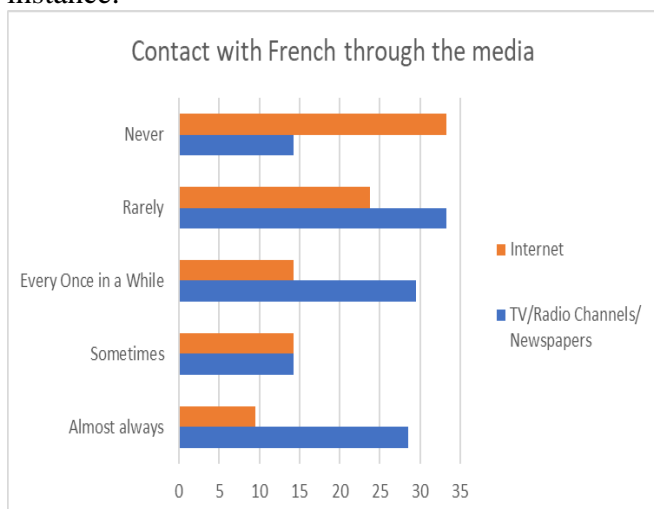


Figure 5
Contact with French through the media

In the former question we dealt with contact of French during childhood, whereas the diagram above shows the informants' contact with French through the media in the current period. Thus, for their current contact, it is by choice, no one imposes the use of such or such language. The diagram demonstrates that a great majority does not surf on Francophone websites. Whereas it seems that there is a slight majority who rarely watch or read French-speaking channels and newspapers respectively. On the other hand, it is shown that there is almost the same percentage of persons who have contact with French-speaking

TV, Radio channels and newspapers, this percentage is not far from the one of people who rarely have this contact. Thus, even though the majority of informants do not have contact through websites, they have it through the other types of media. This may be explained by the fact that they are students, since they are majoring in English studies, it seems obvious that most of their research is done on English websites.

Language choice

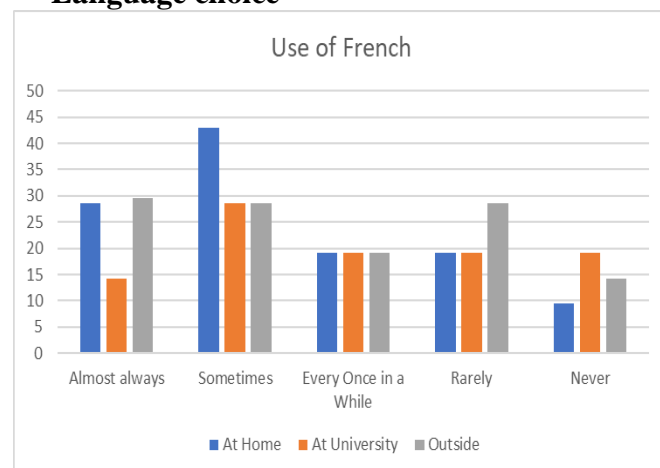


Figure 6
Use of French

Concerning the use of French in daily conversations, the diagram indicates that the vast majority use French at home, it is sometimes used at university. As far as the use of French outside university, the diagram shows a balance between people who use it almost always, those who use it sometimes and those who rarely use it. A minority never uses French outside university, and this may be due to their negative attitudes towards French, this category of persons avoids using French in all circumstances, even though according to former research (e.g.: magister thesis: Code-switching vs Borrowing...) it has been shown that all Algerians use French in their daily communication either through borrowings or through code-switching even though they are not aware of it. Yet the mainstream is aware of it.

Language Attitudes

The above-mentioned questions were used to examine students' attitudes toward languages. The replies are summarized in the graphs below, that will be analyzed.

The following graph summarizes information regarding English students' degrees of appreciation for the three languages: Arabic (MSA), French, and English. When asked how much they liked Arabic, the majority of the

informants said "very much." The vast majority of informants appear to enjoy Arabic.

Most informants said "somewhat" when asked if they like French. They seem to enjoy other languages in general, but English appears to be their preferred language since they chose it for their studies. "The category that appreciates French "very much" is the one that values all foreign

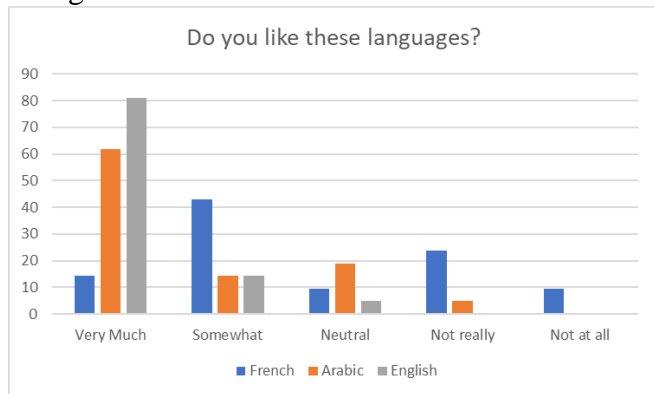


Figure 7
Appreciation of languages

Thus, when grouping the data, we can notice that most informants like English and Arabic very much; almost half of them like French "somewhat". We can deduce that most of them have more positive attitudes towards Arabic and English.

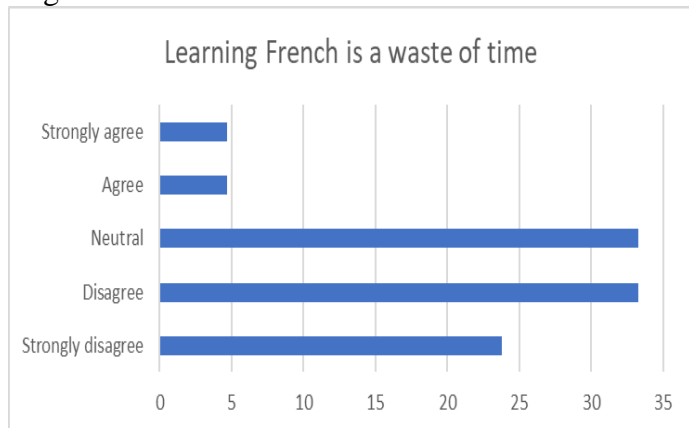


Figure 8
Learning French is a waste of time

The graph associated with the query, which depicts students' attitudes regarding French through the assertion "Learning French is a waste of time," clearly demonstrates that the majority of them disagree with the statement. This suggests that although the majority of English students have positive attitudes towards French, their attitudes are more positive toward Arabic. They consider that learning foreign languages is noteworthy.

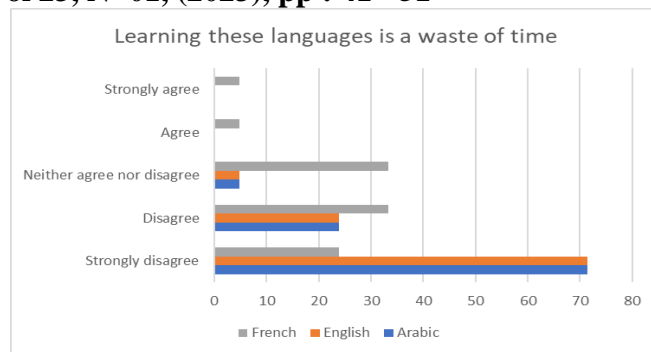


Figure 9
Learning languages is a waste of time

The diagram which summarises students' opinions about the fact that learning languages is a waste of time clearly shows their positive attitudes towards Arabic and English, since most of them strongly disagree with the fact that learning the latter languages is a waste of time. Thus, it emphasises the results shown in the graph about their attitudes towards French, i.e., even though a big portion has positive attitudes towards French, their fondness goes towards MSA and English.

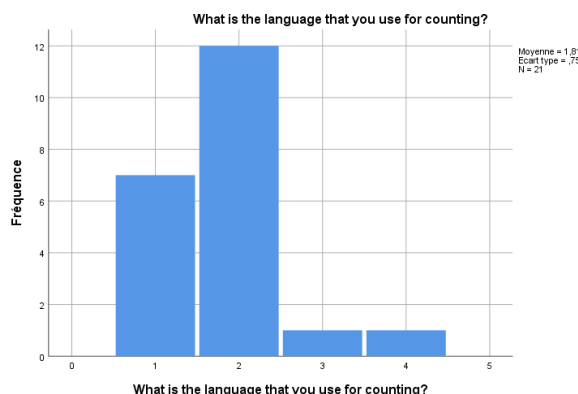


Figure 10
Language used for counting

The graph shows that most students use French for counting, a minority uses English or another language, the remaining portion uses Arabic for mathematical operations. This shows that French is settled in the brains of students through the constant contact that they had during childhood, either through their parents or through education since in Algeria children start learning French in the third year of the primary school which is by the age of seven or eight.

What is the language with which you feel more comfortable or that you use effortlessly?

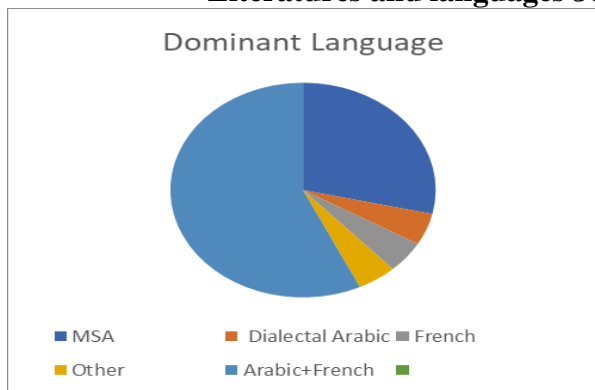


Figure 11
Dominant language

According to the pie chart, most informants feel more comfortable while using a mixture of Arabic and French. It seems that they are aware that the Algerian sociolinguistic situation is characterised by code-switching and code-mixing. They are students of English, yet they consider Arabic and French as their dominant languages. The results may have been different if the sample population was different. For instance, we may hypothesise that if the same study was done in a setting in which there were Kabyle informants, the dominant language would have been Tamazight or a mixture of Tamazight with French.

- What is the language that you use to express strong emotions?

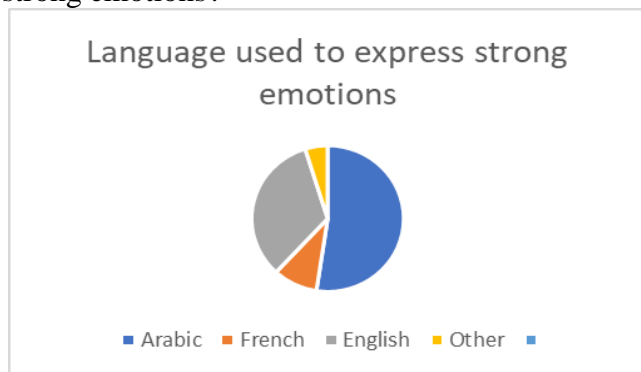


Figure 12
Language used to express strong emotions

Despite the fact that most informants regard their dominant language to be a combination of Arabic and French, when it comes to expressing strong emotions, the majority of them favor Arabic. Nonetheless, English is used by a large percentage of the informants. French is given extremely little weight when it comes to emotions. It is possible that students of English are unfamiliar with expressions that illustrate feelings.

The following question is:

- What is the language that you use in your dreams (while sleeping)?

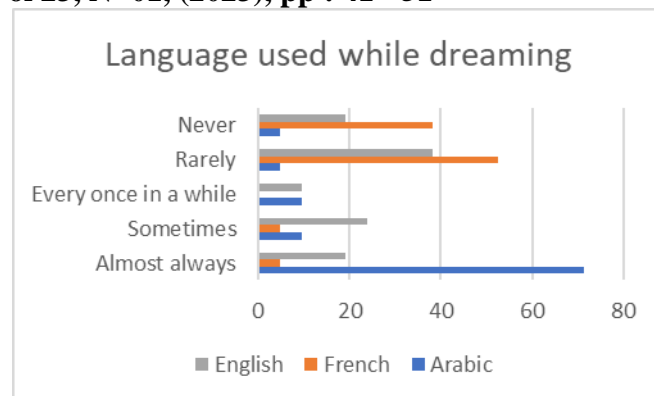


Figure 13
Language used while dreaming

The bar graph plainly illustrates that the overwhelming majority use Arabic when sleeping. This demonstrates the unconscious use of a language. It means that the language employed by the unconscious memory in the brain is Arabic, despite the fact that they have a diverse linguistic repertoire while they are conscious. The distinct languages are stored in different areas of the brain.

- Are you bothered by a heavy accent when a speaker uses a foreign language?

Table 1

	Percentage
Yes	4,8
No	95,2
Total	100,0

Attitudes towards foreign accents

The table shows that a great majority is not worried when someone speaks a foreign language with a heavy accent. Algerians speaking French with a pronounced Arab accent and Chinese persons speaking English were two examples offered to informants. The findings suggest that students have positive attitudes towards foreign languages and that they are more concerned with the message than with the speaker's accent.

5. Conclusion

In the present study, we have tried to shed light on the differences between First language attrition, non-L1 attrition and foreign language attrition. We have reviewed some theories about language attrition such as the Activation Threshold Hypothesis, The Dynamic Model of Multilingualism.

In the analytical part, we have examined the data that we collected from students of English as a foreign language and the results show that the extra-linguistic factors that influence language

attrition/maintenance are factors that are related to contact with the language under investigation, to language choice and to language attitudes. The findings suggest that contact factors appear to have the greatest impact on attrition. Individuals who have more contact with French appear to have lower attrition rates. Even if they have positive attitudes toward French and foreign languages in general, those who have less contact tend to forget French. However, further research is needed to determine the language levels and skills that are most vulnerable to language attrition. It would also be important to conduct a comparative study of students from various fields and to assess language attrition. We intend to tackle these aspects in future investigations.

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