SELF-REPAIR AND VOCABULARY ATTRITION IN ENGLISH AS A SECOND LANGUAGE: A MULTIPLE CASE STUDY OF MOROCCAN NON-NATIVE SPEAKERS OF ENGLISH

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Abstract: The present study examines self-repair produced in free speech by Moroccan speakers of English as a second language. It essentially compares self-repair strategies of proficient second language speakers with self-repair strategies of low-level speakers who also identify as attriters, focusing primarily on productive vocabulary knowledge. Silent films were used as the prompt for L2 output. To analyze the data, self-repair instances were identified, color-coded, then classified on the basis of three categories: hesitation pauses, lexical and quasi-lexical speech fillers, and full and partial repetitions. The study concluded that in the given context of the research, self-repair was prevalent amongst all four participants, though with varying degrees. It also showed that the most used categories of self-repair were full and partial repetitions as well as lexical and quasi-lexical speech fillers. The comparative analysis showed a possible link between self-repair, length of the disuse period where attrition occurred, productive vocabulary size, and the level of proficiency in English as a second language. The qualitative analysis revealed differences in the underlying reasons for the participants' use of self-repair. Proficient speakers mainly employed self-repair to compensate for false starts, while the attriters employed self-repair to achieve lexical attainment and/or to exert lexical replacement. The paper draws on literature on vocabulary knowledge, the bilingual mental lexicon, self-repair, and second language attrition to show that studying self-repair is important in the context of second language learning and second language attrition as it adds to our understanding of the learners' cognitive processes and has implications for language pedagogy.

Keywords: self-repair, second language vocabulary attrition, conversation analysis, bilingualism, English as a second language

1 Introduction

Studies of language attrition started in the 1980s and have since yielded significant results that have important implications on language pedagogy. Nevertheless, approaching second language attrition from the perspective of pragmatics, particularly through the study of repair in relation to language attrition, has not yet been extensively addressed by research. Henceforth, exploring the extensive use of self-repair as a potential indicator of language attrition in the context of second language learning aspires to add to our understanding of L2 learners and how they lose or maintain their vocabulary. In this paper, second language vocabulary attrition is examined using conversation analysis through the identification and analysis of self-repair instances in free speech prompted by silent movies. Its main aim is to explore self-repair of Moroccan non-native speakers of English and investigate the potential link of self-repair with

vocabulary attrition. While the present study may have yielded predictable results, they are worthy of attention because of the context of the situation in which they were obtained.

2 Theoretical background

2.1 Vocabulary

It may come as no surprise that it is naturally impossible to learn a language without learning its vocabulary; without a substantial stock of vocabulary, learners may not be able to communicate at all. Vocabulary is an essential component of all the receptive and productive skills. While the terms "vocabulary, lexis, and lexicon" are often used interchangeably, they all indicate the total stock of words in a language (Jackson & Amvela, 2007, p. 2). As words are not perceived as independent language units, the knowledge of words varies in degrees and levels (Nation & Webb, 2011). This knowledge can be viewed as a continuum encompassing different levels of awareness starting with familiarity with a word and ending in the ability to use it correctly in free production (Laufer & Paribakht, 1998). Different dimensions are included in this continuum; notably, receptive and productive knowledge, size, depth, and breadth of vocabulary (Nemati, 2010).

Receptive knowledge can be viewed as the understanding of word meaning and the storage of these words in memory, while productive knowledge can be perceived as the retrieval of these words from the memory to be used in the proper context (Nattinger, 1988). Nation (1990) views receptive knowledge as the ability to recognize a word and its meaning when encountered, and productive knowledge as the ability to write it in an appropriate situation. That said, receptive knowledge entails the retrieval of words in reading or listening, and productive knowledge involves the ability to express word meaning in speaking or writing (Nation & Webb, 2011).

For the purpose of this paper, the focus will be on the learners' productive vocabulary knowledge. Knowing vocabulary productively necessitates the ability to pronounce it correctly taking into account its stress patterns, to spell it correctly in writing, to put it together using the right parts in the correct form, to express its intended range of meanings in the right contexts, to produce its corresponding antonyms and synonyms, to use it in authentic sentences, to associate it with words occurring with it, and to identify its degrees of formality (Nation, 2001). These criteria are all needed to cover the productive aspects of word knowledge encompassing its "form, meaning, and use" (Nation, 2001, p. 50). In a similar vein, Ur (1996, pp. 61-62) suggested that knowing a word means knowing its "form, grammar, and collocation" and being aware of its "connotation, denotation, and appropriateness". Harmer (1991, p. 158) joined this view and added the aspect of "use" indicating that it is also necessary to understand the style, register, formality, and metaphoric and idiomatic meanings of an item.

As for vocabulary size, a general principle concerning native speakers' vocabulary size refers to the knowledge of around 20 000 words, with a word family including "base word, its inflected forms, and a small number of reasonably regular derived forms" excluding "proper

names, compound words, abbreviations, and foreign words" (Nation & Waring, 1997, p. 2). Second language learners are expected to need knowledge of at least "3000 high frequency words" of a language, which need to be prioritized, as learning low frequency words will not be sensible (Nation & Waring, 1997, p. 2). It is worth mentioning that low-frequency words are not encouraged to be explicitly taught, rather encouraged to be independently approached by learners using vocabulary learning strategies (Nation, 1990).

While vocabulary breadth and depth are not specifically studied in this paper, it is still worth briefly highlighting their definitions, for they contribute to our overall understanding of the nature of vocabulary knowledge and may be of interest for further research. Vocabulary knowledge breadth concerns "the number of words the meaning of which one has at least some superficial knowledge" (Qian, 2002, p. 515). Schmitt (2010) described four categories of vocabulary breadth summarized as follows: (a) form recall, which is the production of the target form corresponding to its meaning; (b) form recognition, which is the recognition of the form corresponding to a given meaning; (c) meaning recall, which is the production of the given meaning corresponding to a target word; and (d) meaning recognition, which is the recognition of the given meaning corresponding to a target word (Zhang & Lu, 2015). These are claimed to vary in degree of difficulty, notably that recognition is easier than production of L2 vocabulary (Laufer & Goldstein, 2004).

Concerning vocabulary depth, this can be viewed as the knowledge of the important aspects of meaning related to words (Anderson & Freebody, 1983). This simply implies the level of knowledge one has of a lexical item (Qian, 2002). As was previously mentioned, word knowledge is argued to involve knowledge of form, meaning, and use. The ability of learners to use a word appropriately requires mastery of all these knowledge aspects (Nation, 2001; Schmitt, 2008). It follows that productive vocabulary knowledge along with vocabulary size are of specific interest to the current paper. 'Vocabulary' is used as a generic term to refer to words, including their form, grammar, collocation, usage, and different aspects of meaning (connotation, denotation, and appropriateness).

2.2 The bilingual mental lexicon

Based on studies of vocabulary acquisition, the mental lexicon is assumed to be the center of lexical storage where words might be stored and represented in the mind (Dóczi, 2020). Many theories and models of the mental lexicon continue to be posited, but the most relevant to this paper are those related to the bilingual lexicon. Of the large number of studies that have dealt with the mental lexicon, Levelt's (1989) model of the internal structure of a lexical entry, which aims to conceptualize the organizational structure of the bilingual mental lexicon through a representation of a lexical entry's internal structure, is worth highlighting.

Levelt's (1989) concept, as shown in Figure 1, shows that this internal structure consists of the lemma, containing syntactic and semantic information, and the lexeme, containing phonological and morphological information. For instance, the latter two are concerned with pronunciation and spelling, respectively, and the former two are concerned with word formation and meaning, respectively. This conceptualization is useful in this context, for it helps in understanding the type of information integrated in each lexical entry. In the case of attrition, it may be the case that retrieval of such information is unsuccessful.
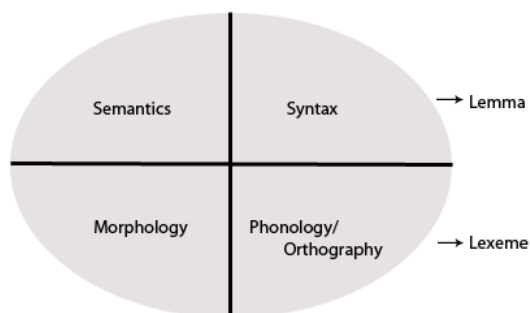
Figure 1. A lexical entry's internal structure (Levelt, 1989)

Furthermore, two perspectives emerge in the conceptualization of the bilingual lexicon. Dóczi (2020) summarized these into separative and interactional perspectives. The separative perspective posits that the L1 and L2 lexicons are separate systems, leading to split paths for lexical access and activation. This view is supported by studies on word association tests (Meara, 1982), phonological and morpho-syntactic structures (Singleton, 2007), aphasia, and extreme cases of L1 attrition (Paradis & Goldblum, 1989; Schmid, 2002).

According to the interactive perspective, the bilingual mental lexicon is an "interactive network system" (Dóczi, 2020, p. 55), but without a definite determination of the degrees of this interaction. Support of this view relies on findings from experiments with cognates (Colomé & Miozzo, 2010), word length, lexical availability, role of semantic categories (Catalan & Dewaele, 2017), level of proficiency (Shook & Marian, 2012), and depth of word knowledge (Wolter, 2001). The level of proficiency showed that advanced bilinguals' languages are both activated, and their fast lexical access is facilitated through translation, while the less advanced bilinguals' languages are characterized by slower lexical access and establishment of conceptual connection (Dufour & Kroll, 1995). This paper adopts the interactional perspective, for as Dóczi (2020) concluded, there are numerous factors which lead to the restructuring of the mental lexicon, causing variability and variation; notably, "context, frequency, and recency of use" (p. 61).

In a similar vein, De Bot and Bátyi (2022) summarize various bilingual models of speaking. Of these, Levelt's Speaking Model (1989) is of special interest to the paper. In this model, a "conceptualizer" turns communicative intentions into speech through the generation of a message after consideration of a linguistic register and conversational setting (De Bot & Bátyi, 2022, p. 230). The conceptualization involves organizing ideas and aiming at achieving communicative goals before any actual lexical concepts are turned into verbal messages. The mental effort behind such process is said to be apparent in the speech of the "formulator". In fact, hesitation markers may show the intensity of mental processes preceding the verbalization of complex or new information and are often manifested in silent or filled pauses because the planning phase takes more time and attention, and the needed resources to speak are restricted (De Bot & Bátyi, 2022, p. 230). This is especially important, as it can be linked to second language attrition. In attempting to explain the speech disfluency of second language speakers, L2 speakers are noticed to lack access to their L2. As Lahmann et al. (2017) explain: "during the second phase in the conceptualizer and during lexical access at the level of the formulator, the existence of an L2 can lead to breakdown and possibly the need to repair" (p. 230). This may be

due to a lack of automatization of articulation, a competition with the L1 in the formulation phase, a deficiency in lexical storage, or a reliance on controlled processes (Lennon, 2000). It is then of special interest to this paper to investigate whether these potential reasons underlie a case of language attrition.

2.3 Self-repair

Repair has been extensively studied in recent years. In conversation analysis, repair is viewed as one of the most essential elements in human communication (Hayashi et al., 2013). It is especially utilized whenever troubles in communication arise either in "hearing, speaking, or understanding" (Sidnell, 2006, p. 3). Interactants, hence, deploy different pragmatic techniques to ensure mutual intelligibility as they conjointly build up meaning.

Repair can be defined as "error correction, the search for a word, and the use of hesitation pauses, lexical, quasi-lexical, or non-lexical pause fillers, immediate lexical changes, false starts, and instantaneous repetitions" (Rieger, 2003, p. 2). Schegloff et al. (1977, pp. 366-367) organized types of repair based on the involved interactants, resulting in "self-repair" (the speaker) and "other-repair" (the co-participant). "Trouble source" is the term coined to refer to the problematic part in communication as perceived by the interactants (Schegloff et al., 1977; Schegloff, 1992; Sidnell, 2006).

Accordingly, the sequence and initiation of repair differs from one context to the other, resulting in four types: (a) self-initiated self-repair, when the repair of a trouble source is initiated and conducted by the speaker; (b) other-initiated self-repair, when the repair of a trouble source is initiated by the recipient and conducted by the speaker; (c) self-initiated other-repair, when the speaker attempts to get the recipient to repair a trouble source; and (d) other-initiated other-repair, when the recipient both initiates and conducts the repair of a trouble source (Schegloff et al., 1977).

This study is further interested in specifically self-repair. Self-repair occurs in three positions: (a) in the on-going trouble source turn, (b) at the transition space immediately following the trouble source turn or (c) in third position following the other's next turn (Schegloff et al., 1977, pp. 366–367). Self-repair is said to be favored, for an ongoing speaker has higher chances of initiating and carrying out a repair. Additionally, it is the speaker's perception of their ability in performing repair that determines whether and how the repair will be performed (Norrick, 1991).

As far as this study is concerned, self-repair will be considered as any "feature that interrupts or disturbs the smooth flow of his or her speech" (Rieger, 2003, p. 48), with a specific focus on "lexical and quasi-lexical pause fillers, immediate lexical changes, false starts, and self-repetitions, whether full or partial" (Rieger, 2003, p. 48) and will be studied as disfluency markers in attriters.

2.4 Second language vocabulary attrition

As a starting point, it is worth highlighting some terminological subtleties which relate to the nature of language attrition, particularly regarding the distinction between second and foreign

language. In some studies, a clear distinction is made between FL and L2 attrition (Schmid & Mehotcheva, 2012) where L2 refers to the second language of bilinguals or returnees who start using and relying more on their L1, and FL attrition refers to an instructed language learned in school, or a language picked up in a naturalistic environment. While more recent studies problematize the use of the term "second language" to refer to all non-first languages (Jessner et al., 2020), the current study does not establish a discrete category of the term, as it views the learned language(s) as a complex unity that goes beyond the chronological order of acquisition. Thereafter, the term second language attrition is used here to describe the attrition of English, which the participants identify as their second language, one that they learned at school and used elsewhere. This also relates to the distinction between language acquisition and learning which are rather adopted as a continuum than distinct categories in this paper.

In essence, research on attrition showed that second language attrition is likely to happen when the use of a second language declines because of changes that limit the input, output, positive feedback, and lead to the replacement of a language with a more dominant one. Placing second language learners under such circumstances may lead them to experience various degrees of second language attrition (Olshtain, 1989).

Up till today, language attrition still constitutes a mysterious yet interesting phenomenon to researchers. Language attrition can be defined as the "loss of language as a result of contact with majority languages, loss of language by communities, or loss of language by individuals in both pathological and nonpathological settings" (Bardovi-Harlig & Stringer, 2010, p. 2). Language attrition also has various characteristics, notably reduced phonetic inventories, minimal phonetic rules, grammatical simplicity, and reduced lexical repertoires (Holmes, 2008, p. 59).

This paper focuses on the reduced lexical repertoires, specifically those related to the productive skills, as they are the most likely to undergo attrition (Bahrick, 1984). The lexicon is said to be the first linguistic area that is commonly and rapidly affected by attrition, even more than grammar (Kuhberg, 1992; Moorcroft & Gardner, 1987). Similarly, Russell (1999) and Cohen (1989) suggested that vocabulary attrition may relate to size or access, and that it is rather a result of lack of access in production than comprehension.

Furthermore, the paper attempts to approach second language vocabulary attrition from a broad pragmatic perspective and relies on conversation analysis as a tool to analyze the productive vocabulary competence of attriters and attempts to visualize attrition's manifestation in free speech through self-repair. It hypothesizes that self-repair as a disfluency marker in one's speech is a symptom of attrition in the context of English as a second language.

3 Aim and research questions

This study aims to explore self-repair of Moroccan non-native speakers of English and investigates the potential link between self-repair and lexical attrition. It focuses on self-repair instances of Moroccan former students of English who did not continue their studies or career in English-related occupations and compares them to those of current Moroccan students of English with a high proficiency level. It seeks to answer the following questions:

- How frequent is self-repair among the participating Moroccan students of English?
- What type of self-repair is the most prevalent among the participating Moroccan students of English?
- What may be the link between self-repair and lexical attrition?
- What could be the underlying reasons for the extensive use of self-repair?

4 Data and methods

To answer the research questions listed above, a study with a qualitative design was carried out. More precisely multiple-case studies involving Moroccan learners of English were conducted, which allowed for the exploration of the issues concerning self-repair and lexical attrition.

4.1 Participants

The participants were four Moroccan graduate students from the English language department in Sidi Mohamed Ben Abdelah University at the Faculty of Letters and Human Sciences of Fes, Morocco. Two of these participants (a male and a female) are currently pursuing a Ph.D. in English, and the remaining two (males) are former graduates with a BA in English studies who did not pursue their studies or career in any English-related occupations. Note that BA students can only obtain their BA if their level is B2 on the CEFR. This is achieved by passing the examinations of 30 courses along with the writing of a thesis in a three-year study period, or five at most. While the Ph.D. candidates have a certificate showing their C1 level in English, the BA alumni were asked to self-assess their current level, and they both claimed it to be B2 on the CEFR. The two male alumni last graduated 7 and 2 years ago and claim that they mostly ceased any contact with English ever since. They are therefore considered to have undergone attrition based on their claims. All participants share the same L1: Moroccan Arabic, two can additionally speak French (B2 level), the other two claim to be rather weak in it (A2 level). Their age ranged between 23 and 26 years. Prior to the interviews and questionnaire, the participants signed a form of consent (based on an audio records consent form contributed by Reményi (2022) in Appendix D), granting the researcher permission to use their data for the purpose of this study.

4.2 Data collection

Data for this study comprised oral reports/commentaries on two Charlie Chaplin scenes; The Lion's Cage, and The Kid, fight scene. These short clips were selected because they are silent; hence, do not expose the participants to any authentic English language samples that would disrupt or slightly influence their current state of competence in English as a second language.

Moreover, the clips are loaded with diverse visual details ranging from the storyline to props and set decorations, leaving a wide room for participants to rely on their speaking skills to describe and report on what they had watched. All participants were invited to 30-minute individual interview sessions (Appendix A) where they were asked about the plot, characters,

settings, and their views in the first ten minutes. The interviews were carried out in English by the researcher using an online platform and were video recorded.

To ensure the interview's trustworthiness, a pilot interview was conducted with two additional students. It proved to be effective in gathering enough data about the foci of inquiry. Some questions were omitted to avoid repetition, and others emerged during the interview. The collected data was then transcribed, and all self-repair items were highlighted and classified into their corresponding categories. In the remaining time of the interview sessions, the participants were asked to think aloud while taking the Vocabulary Levels Test (productive) designed by Laufer and Nation (1999) and adapted for WWW Cobb, version C (https://www.lextutor.ca/tests/levels/productive/) to measure their productive vocabulary knowledge (Appendix C). The C version was chosen because it excludes items cognate to Romance languages, notably French, which is widely spoken in the Moroccan context. The participants were further asked to take the University Word List test, from the formerly mentioned test, version A (https://www.lextutor.ca/tests/levels/productive/uwla.html) to measure their productive academic vocabulary. Finally, the participants were invited to fill in a short background questionnaire comprising questions related to their experience with English a second language (Appendix B).

4.3 Data analysis

To analyze the data, all self-repair instances were first identified, color-coded, then classified based on three categories: hesitation pauses as prolonged word-ending sounds, lexical and quasi-lexical speech fillers, and repetitions, including full and partial repetitions. Other categories were excluded from the current research. This does not mean they are any less valuable, rather they need further research.

5 Results

To investigate the frequency of use and prevalence of these repair items in relation to the text length, a percentage analysis (Table 1) showed that lexical and quasi-lexical fillers were the most commonly used, corresponding to a percentage of 57% of the total 522 self-repair instances in 95 minutes, followed by full and partial repetitions, corresponding to 35%, and only 8% of the prolonged sounds. Note that although all participants were asked the exact same questions in the same manner, the total speaking time of one of the attriters (student D) was higher, and that is because the oral disfluency that is marked by an elevated use of self-repair disrupted the speech's flow, leading to a greater time span.

	Number of lexical and quasi-lexical fillers	Number of prolonged word-ending sounds	Number of full and partial repetitions	Total speaking time of participants - min
Student A	54	17	30	20
Student B	17	1	8	20
Student C, attriter	77	7	31	20
Student D, attriter	148	16	116	35
Total number of self-repair instances	296	41	185	522 in 95 min
Corresponding percentage of self-repair instances	57%	8%	35%	-

Table 1. Self-repair use by type and participant

Moreover, a comparative analysis was conducted among the four participants (the two proficient speakers (C1 level): group 1, and the two attriters (B2 level): group 2) based on the relationship between self-repair and other variables such as gender, age, total study years of ESL, ESL use outside of study time, disuse period of ESL, current level of proficiency on the CEFR, former level of proficiency on the CEFR (before disuse period), scores of vocabulary test version A (academic), and scores of vocabulary test version C, which were compiled from the aforementioned Vocabulary Levels Test (productive) designed by Laufer and Nation (1999). Tables 1-3 show the most important results focusing on productive vocabulary size, proficiency level, and disuse period.

		Group 1 (2 C1 level PhD candidates)	Group 2 (2 B2 level BA alumni)
Disuse period (years)		0	3
Frequency of English use		100%	20%
Proficiency level of English	**Vocabulary size Test A score**	74.50%	49.5%
	Vocabulary size Test C score	46.50%	21.5%

Table 2. Survey results (by average)

Based on the survey answers, the average results show that group 2; the attriters whose level of proficiency is claimed to be B2 on the CEFR, scored a lower percentage in their two vocabulary test sizes compared to group 1; the proficient speakers whose level is C1 on the CEFR. Moreover, a noticeable distinction is seen in the percentage of disuse period and

frequency of English use, where the second group scores a lower percentage in frequency, and a higher average of disuse years.

	Group 1 (C1)	Group 2 (B2)
Lexical and quasi-lexical fillers	12%	38%
Prolonged word-ending sounds	22%	28%
Full and partial repetitions	10%	40%

Table 3. Conversation analysis results (by average)

Moreover, the average percentage of self-repair drawn from conversation analysis (Table 3) shows that on the one hand, the group of attriters (group 2) used more full and partial repetitions along with lexical and quasi-lexical fillers than group 1. On the other hand, a difference in the use of prolonged word-ending sounds is rather small.

It can be noticed from Tables 1, 2 and 3 that the more English was used, the less self-repair was employed, and the higher the level of proficiency and vocabulary size were, the lower self-repair instances were found. Similarly, the longer the disuse period was, the lower students scored in the vocabulary tests. It can therefore be concluded that there may be a link between the disuse period, frequency of use, proficiency level, and vocabulary size on self-repair. It may also be the case that an extensive use of self-repair is a symptom of attrition.

Furthermore, approaching the use of self-repair qualitatively, it could be noticed that in the case of the two BA alumni who did not use English for a long period, as illustrated in the extract below (extract 1), self-repair was often used in the middle of the speech and adopted as a means of gaining time to achieve attainment and find the most suitable vocabulary items. It is worth noting that in the two bolded example sentences, the highlighted self-repair instances were used before and after lexical replacement to compensate for the shortcoming of their initial wrong vocabulary choice. The green highlights show fillers, the yellow ones show repetitions, and the red ones show prolonged sounds.

Extract 1

1	H (00:21)
2	Can you tell me a little bit about the first clip? The one entitled the Lion's cage. What was the scene about?
3	D (00:28)
4	Well, uuh uuhm I started watching the video, by the way, uhm I like Charlie Chaplin. Uh, he's a funny guy, he'ss good, he's talented, so I start watching with uh like uhee start smiling unconsciously. Uuhh, Heee he got himself in aaa bad, a very bad situation. And and you know, he's trying to to to get out out of that situa uh situation and uuh and in a funny way. You know, uuh when when you start, when when you saw like for a normal person, when you're so when you're so, when you see uuh a line in front of youuu or like, be super shocked and it was like

uuh he was trying to make to make us laugh uh and at the same time, get out uh the uuh get out of the out of the situation, you know? So it was funny. Uuh, **He he tried to to make he tried to uuh to get rid, I mean, he tried to get away**, but he made the situation much worse. Uhuum he he asked hi his wife, I think, for help.**Uh But she passed awa uhh she passed away uuhm she passed out I mean, not away hhhhh**. She she passed out uuh because she was shocked. And that's it, that that's what I saw in that I was like, and I saw in the video.

However, in the case of one of the ongoing students of English, as illustrated in the second extract, self-repair instances were often used to compensate for false starts, as can be seen in the example bolded sentence. Similarly, they were often used either terrain initial, meaning before an idea had started or terrain final; after the idea was completed, but only occasionally terrain medial; in the middle of speech.

Extract 2

1	B (02:43)
2	Uhm lessons to draw? Yeah. Never have yourself in a cage with a lion.
3	H (02:51)
4	Okay, great. Could you also tell me a little bit about the fight scene from the movie the kid?
5	B (03:07)
6	Okay. So, at first there was a fight between two children. One of them is Charlie Chaplin's son. **The other guy child is another uhm he's living in the neighborhood** with Charlie Chaplin's son. They had a fight. Charlie Chaplin's son won the fight, uhm and he kept on winning. And then the the other child called for his brother to help him win the fight. And his brother made an oat for Charlie Chaplin. If your son wins, I'll beat you. Charlie Chaplin's son kept on winning. And then they started a fight. The grownups fight. Uhm, Charlie Chaplin, at first was afraid of fighting him. And then a woman came and uhm asked for peace. She actually asked him to stop fighting and annd said a very wise uh sentence. If somebody is trying to beat you, just give him the other cheek. It's like offer peace instead of fighting them. Charlie Chaplin did the contrary. He fou he fought him a lot. And I enjoyed that scene. After that, he went to hide in a house and the guy just left.

Referring back to Levelt's (1989) Speaking Model and speech disfluencies in the literature, it can be established that the elevated use of self-repair in attriters during the formulation phase, especially of fillers and repetitions, indicates a difficulty and great amount of mental activity going on in the conceptualization phase, entailing the existence of an underlying cause, in this specific case most probably attrition. This typically happens when language speakers no longer actively use the second language and their knowledge of it begins to fade away.

Apparent symptoms of second language vocabulary attrition include a decreased ability to recall and recognize words and an increased difficulty in producing complex language structures, which leads to the emergence of speech disfluencies marked by an extensive use of self-repair as a result of prolonged disuse periods. This can be due to a lack of automatization of articulation, a

competition with the L1 in the formulation phase, or a deficiency in lexical storage. In the case of the studied attriters, it may be especially due to a deficiency in lexical storage considering their low vocabulary size and the way self-repair instances were used before and after lexical replacement to compensate for their wrong initial vocabulary choice.

Likewise, referring to the interactional perspective in the conceptualization of the bilingual lexicon (Dóczi, 2020; see also Catalan & Dewaele, 2017; Colomé & Miozzo, 2010; Shook & Marian, 2012), it was established that context, frequency, and recency of use lead to the restructuring of the mental lexicon. It was also recognized that less advanced bilinguals' languages are characterized by slower lexical access and establishment of conceptual connection. Relating these to the studied attriters, it might be posited that because of the low frequency and recency of the second language over extended disuse periods, their mental lexicons were restructured, and their lexical access became deficient, leading to the elevated use of self-repair. Understanding and accounting for these speech disfluencies is essential in order to detect potential attrition early on and attempt to reverse it with more language practice and exposure.

6 Discussion

This study aimed to explore self-repair of Moroccan non-native speakers of English and investigates the potential link between self-repair and lexical attrition. It focused on self-repair instances of Moroccan former students of English who did not continue their studies or career in English-related occupations and compared them to those of current Moroccan students of English with a high proficiency level. The study participants were asked to complete a vocabulary test and a language production task, which was designed to elicit self-repair instances. The results showed that second language learners who exhibited higher self-repair instances also scored lower on the vocabulary tests, indicating a higher level of vocabulary attrition.

The findings suggest that self-repair could be an indication of second language vocabulary attrition, as second language learners who use self-repair frequently are likely to have a weaker second language lexicon. This falls in line with other studies showing the relationship between second language proficiency and self-repair. For example, Van Hest et al. (1997) synthesize existing research on self-repair behavior in both first and second language contexts and note that second language speakers are likely to make more self-repairs than first language speakers, depending on the linguistic distance between L1 and L2. In their study, they found that self-repairs were used more often by beginner and intermediate speakers than they were by advanced speakers, suggesting that language proficiency may influence self-repair behavior in the second language.

Similarly, Kormos (1999) studied the role of self-repair and monitoring in second language production and found that second language speakers used more self-repairs than native speakers, as their system of knowledge and production mechanisms were not yet fully automatic, suggesting that second language speakers may experience more difficulties in monitoring and correcting their own speech, hence using more self-repair.

In the same line, Mojavezi and Ahmadian (2014) investigated self-repair in relation to working memory capacity in the production of second language speech. Their results revealed that self-repair instances were less likely to be found in the speech of second language learners with a stronger working memory capacity, as second language speakers who rely more on memory to produce language and monitor their speech have a more cognitive load and use more self-repair.

Likewise, Georgiadou and Roehr-Brackin (2017) explored self-repair behavior in produced speech in relation to executive working memory, phonological short-term memory, and fluency and found that executive working memory enhances performance at the conceptualization and formation stages of speech production and that it is associated with the use of fewer self-repair instances and higher fluency ratings.

Furthermore, Jessner et al. (2020) investigated second language attrition in school contexts and found that learners who were less exposed to the target language and less immersed in the foreign language community were more likely to forget the learned language and more likely to have reduced proficiency over time. They also found that the rate of attrition was affected by several factors, including motivation, proficiency, and the amount of contact with the target language community. These factors are useful in developing effective strategies for language retention and re-learning. Schmid and Köpke (2017) further show that second language vocabulary attrition is experienced rather commonly by second language learners as their lexical knowledge declines over time.

7 Conclusion

The present study set out to investigate self-repair produced in free speech in the context of English as a second language and to compare self-repair of speakers with a proficient level of English to self-repair of speakers with a low level of English that resulted from attrition, with a specific focus on productive vocabulary knowledge. Silent films were used as the prompt for L2 output. It concluded that in the given context of the research, self-repair was prevalent amongst all four participants, though with varying degrees. It also showed that the given categories of self-repair that are mostly used by the participants are full and partial repetitions as well as lexical and quasi-lexical speech fillers. The reasons underlying the prevalence of these specific types necessitate further exploration by drawing on a comparison between the participants' self-repair in their native language and their second language. The comparative analysis also showed some link between self-repair, length of the disuse period where attrition took place, productive vocabulary size, and the level of proficiency in English as a second language. It is meaningful in that it furthers our understanding of human language mechanisms and opens the door for further conversation analyses in the context of second language attrition, which has not been extensively addressed. Finally, the qualitative analysis revealed that some underlying reasons for the use of self-repair and the position where it occurred differed in the two categories of the participants, where the proficient speakers employed self-repair to compensate for false starts, while the attriters employed self-repair to achieve attainment and find the most suitable vocabulary, or to exert lexical replacement.

Based on the results, the study can provide implications for language pedagogy. On the one hand, second language teachers can use their awareness of language attrition in promoting and designing more vocabulary-focused tasks that favor repetitive exposure to the target language, especially in authentic materials, and continuous recycling. Moreover, more attention should be given to explicit vocabulary instruction, taking into account the different aspects of word knowledge; form, meaning, and use. Accordingly, students' vocabulary size should be measured in different points of time and considered as a potential indicator of lexical attrition in case of a remarkable decline. Feedback on second language production and vocabulary size can also be provided to learners to help track any changes in their learning progress. On the other hand, second language learners could view self-repair instances as an indicator of language production problems that may have a link with second language attrition. They can use self-monitoring through recording writing and speech to identify weaknesses in their lexicons and spot errors that can be corrected in individual or group feedback. This can help identify weak areas, improve second language proficiency, and prevent lexical attrition.

The study has limitations to be acknowledged. First, the number of participants cannot be representative of a wider audience as it is a multiple case-study. Second, the study only focused on specific types of self-repair and did not investigate other factors or language skills to account for the complexity and comprehensive picture of language attrition. Accordingly, the reasons underlying the prevalence of those specific types necessitate further exploration by drawing on a comparison between the participants' self-repair in their native language and their second language. Finally, the study investigated self-repair in relation to lexical attrition at a single point in time, thereby discarding the longitudinal effect of self-repair on second language vocabulary retention. Future studies can hence examine the relationship between self-repair and other language skills or factors along with their interaction with the longitudinal effect of self-repair on lexical attrition to provide a more comprehensive picture of the studied phenomena.

In conclusion, studying self-repair is important in the context of second language learning and second language attrition as it adds to our understanding of the learners' cognitive processes and has implications for language pedagogy. This study needs further extension as the results are solely limited to the studied participants and cannot be generalized.

Acknowledgement

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APPENDIX A

Interview Questions

Thank you very much for accepting to take part of this study and for signing the consent form. I have taken into consideration your answers and preferences. Let me remind you that your answers will not be identified with your name. Do you accept to proceed with the interview?

I had asked you to watch two clips from Charlie Chaplin. The first one is entitled The Lion's Cage

- Could you tell me a little bit about this clip? What was the scene about?
- How did it end?
- Who were the main characters?
- What was your favorite part of the scene? Why?
- What was your least favorite part of the scene? Why?
- What do you think of Charlie Chaplin's acting skills?

Thank you for your answers, let's also talk about the second scene, The Fight, from the movie entitled The Kid.

- What was the scene about?
- How did it end?
- Who were the main characters?
- What was your favorite part of the scene? Why?
- What was your least favorite part of the scene? Why?
- What do you think of Charlie Chaplin's acting skills?

APPENDIX B

Background Questionnaire

As a part of an ESL speaking skills' research project, this survey is designed to collect the participants' background information.
*Your answers and data will remain anonymous and confidential.
*Your answers and data shall only be used for the purpose of this study.
*Your answers and data shall not be identified with you personally.

1. **What gender are you?**
- Female
- Male
- Other

2. **What year were you born in?**
- 1990,1991,1992,1993,1994,1995,1996,1997,1998,1999,2000,2001, other.

3. **What is your native (first) language?**
- Amazigh
- Arabic
- English
- French
- Other

4. **What is your second language?**
- Amazigh
- Arabic
- English
- French
- Other

5. **What other languages do you speak?**
- Amazigh
- Arabic
- English
- French
- Other

6. **Do you currently occupy a work position where English is used as the main language?**
- Yes
- No

7. **How many years did you study English for, in total?**
- 0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15, more than 15.

8. What is your highest obtained or ongoing degree in English studies?
- Bachelor's degree, Master's degree, Doctoral degree, post-doctoral degree.

9. What was your level of English when you first obtained you BA degree?
- Beginner '(A1), elementary(A2), intermediate(B1), upper intermediate(B2), advanced(C1), proficient(C2).

10. How often did you generally use English during your BA period? (in speaking and writing)
- Not applicable (still studying English)
- Always (everyday)
- Very frequently
- Occasionally
- Rarely
- Very rarely
- Never

11. What is your current level of English?
- Beginner '(A1), elementary(A2), intermediate(B1), upper intermediate(B2), advanced(C1), proficient(C2).

- How many years has it been since you stopped studying English?
- 0,1,2,3,4,5,6,7,8,9,10, more than 10 years.

12. How often do you currently use English? (In speaking and writing)
- Not applicable (still studying English)
- Always (everyday)
- Very frequently
- Occasionally
- Rarely
- Very rarely

13. Have you ever travelled to a country, or countries, where English is the first language?
- Yes
- No

14. If yes, how much time did you spend there?
- Never visited
- 1 month, 2,3,4,5,6,7,8,9,10,11, 1 year,2,3,4,5, more than 5 years

APPENDIX C

Productive Vocabulary Test (Version C and A)

Home > Tests >Productive Levels Test Menu

Vocabulary Levels Test (Productive)

By Batia Laufer & Paul Nation; adapted for WWW by Tom Cobb

Use these tests to compare your or your learners' RECEPTIVE and PRODUCTIVE vocabularies
(the other tests on this site are receptive except for CATSS.)

VERSION A	**VERSION B**	**VERSION C**	**Versions A** and **B** are equivalent versions of Nation and Laufer's Levels Test (controlled production format) which has been used by students all over the world.
Start Test	Start Test	Start Test	
Or jump to level	Or jump to level	Or jump to level	**Version C** combines items from Tests A and B that are not cognate with French or other Romance languages (this does not apply to 1000 level, whch is mostly non-cognate, or to UWL, which is mostly cognate).
2k level	2k	2k	
3k level	3k	3k	
5k level	5k	5k	
University	UWL		
Word List	10k		
10k level		10k	

As you go through the tests, the first level you score below 83% on is your growth-edge for productive vocabulary. You can build up this level by working on the corresponding wordlist on the **Linked Lists** page. Use the linked concordance and dictionary as learning tools. Or if your prefer, find e-texts to read using **VP** to identify texts heavy in your zone words (use 'classic' framework for UWL/AWL; use BNC-Coca framework for k-levels).

APPENDIX D

Consent form: Video and audio records consent form

As a part of an ESL speaking skills' project, video and audio recordings will be made of your spoken interaction tasks. Recording will be done only with your consent.

Please indicate below what uses of these records you are willing to consent to. This is completely up to you. I will only use the recordings in ways that you agree to. In any use of these records, names will not be identified.

1. The records can be studied by the researcher.   Yes   No   (please underline)

2. The records can be used by other researchers.   Yes   No   (please underline)

3. The records can be shown at meetings of scientists interested in the study of (EFL) spoken
   interaction.   Yes   No   (please underline)

4. The records can be used for scientific publications.

Yes   No   (please underline)

5. The written transcript can be kept in an archive for other researchers.
Yes   No   (please underline)

6. The records can be shown to other informants.
Yes   No   (please underline)

7.The records can be shown in classroom to students.
Yes   No   (please underline)

8. The records can be shown in public presentations to nonscientific groups.
Yes   No   (please underline)

9. The records can be shown on television and radio. Yes   No   (please underline)

I have read the above description and give my consent for the use of the records as indicated above.

Date ....
Signature ....
Name ....
Age ....

Reményi (2022), based on Ervin-Tripp (2013)