L1 Attrition Resulting from L2 Domination

A case Study of an EFL Young Learner

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استنزاف اللغة الأولى الناتج عن هيمنة اللغة الثانية

دراسة حالة لمتعلمة شابة تتعلم اللغة الإنجليزية كلغة أجنبية

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Abstract

This case study examined the phenomena of language attrition and acquisition. The objectives of the study were to describe how an EFL young learner lost her L1, but at the same time acquired another language, as well as the factors that cause them. The case of this study was a 9-year-old EFL learner. The instruments used in the study were, interview and observation. This study showed that the girl was exposed to her L1 during the speech delay period , therefore, she does not comprehend her L1 too well. On the contrary, she speaks Arabic fluently. As for the factors influencing her language attrition and acquisition, it was found that the age when she was exposed to the language plays a crucial role in determining the level of fluency of each language she acquires, and the exposure frequency with the new languages also plays an important role in her language acquisition. This aligns with the interference hypothesis, which suggests that attrition is caused by the growing influence of the dominant second language (Köpke & Schmid, 2004). This study also revealed that the case was considered a right-brain dominant child, and she subconsciously imitated the native English pronunciation and accent from watching videos on YouTube. It also indicated that she experiences the language attrition as the role of her speech delay in her language development provides more with L2 than L1.

Keywords: language attrition, language acquisition, speech delay, interference hypothesis, EFL young learners

الملخص

بحثت دراسة الحالة هذه ظاهرة استنزاف اللغة واكتسابها. وكانت أهداف الدراسة وصف كيف فقدت متعلمة شابة تتعلم اللغة الإنجليزية كلغة أجنبية لغتها الأولى، ولكنها في الوقت نفسه اكتسبت لغة أخرى، فضلاً عن العوامل التي تسبب ذلك. كان موضوع هذه الدراسة متعلمة شابة تتعلم اللغة الإنجليزية كلغة أجنبية تبلغ من العمر 9 سنوات. وكانت الأداة المستخدمة في الدراسة هي المقابلة. وأظهرت هذه الدراسة أن المتعلمة تعرضت للغتها الأولى أثناء فترة تأخير الكلام، وبالتالي فإن المتعلمة لا تفهم لغتها الأولى جيدًا. وعلى العكس من ذلك، تتحدث المتعلمة العربية بطلاقة. أما بالنسبة للعوامل المؤثرة على استنزاف اللغة واكتسابها، فقد وجد أن العمر الذي تعرضت فيه للغة يلعب دورًا حاسمًا في تحديد مستوى طلاقة كل لغة تكتسبها، كما يلعب تكرار التعرض للغات الجديدة دورًا مهمًا في اكتسابها للغة. وهذا يتماشى مع نظرية فرضية التداخل التي تقول إن الاستنزاف يرجع بشكل مباشر إلى التأثير المتزايد للغة المهيمنة الجديدة المتنافسة (كوبكي وشميد، 2004). وكشفت هذه الدراسة أيضًا أن الطفلة كانت تعتبر طفلة مهيمنة على الجانب الأيمن من الدماغ، وأنها قلدت دون وعي نطق اللغة الإنجليزية الأصلية واللهجة على يوتيوب. وأشارت أيضًا

إلى أن الطفلة تعاني من استنزاف اللغة كنتيجة لتأخرها في الكلام، وتوفر بيئتها المزيد من اللغة الثانية مقارنة باللغة الأولى.

الكلمات المفتاحية: استنزاف اللغة، اكتساب اللغة، تأخر الكلام، فرضية التداخل، متعلمو اللغة الإنجليزية كلغة أجنبية

Introduction

Language attrition, particularly first language (L1) attrition, refers to a gradual decline in native language proficiency. This is often due to prolonged and dominant use of a second language (L2) (Schmidt, 2011). In the context of English as a foreign language (EFL), the dominance of the second language can significantly impact L1 retention, especially among young learners who are exposed to the second language early on (Kupisch & Rothman, 2016). L1 attrition among young EFL learners poses a variety of challenges. As English assumes a more central role in their educational and social environments, the use of the native language may decline, leading to decreased L1 proficiency and confidence (Montrul, 2002). This shift often raises concerns about cultural identity, cognitive development, and overall educational performance, especially in multilingual societies where achieving a balance between the two languages is of paramount importance (De Bot, 2001).

This case study aims to explore the impact of L2 dominance on L1 attrition in a young Libyan female learner. By analyzing the learner's language use, proficiency, and linguistic behaviors, this research will shed light on how L2 dominance (English) impacts L1 retention (Arabic). In addition, the study seeks to understand the broader implications of L1 attrition, including its impact on identity and educational outcomes.

Research Questions

This study is intended to answer the following questions:

1. To what extent does the dominance of the second language affect the mastery and use of the first language among learners of English as a foreign language?

2. What are the factors that cause the language attrition and acquisition?

Aims of the Study

In line with the research questions, the objectives of this study are as follows:
1. Investigating how increased use of English (L2) impacts the proficiency and use of Arabic (L1) among young Libyan female learners.
2. Exploring the effect of frequent use of English (L2) on the proficiency and retention of Arabic (L1) among young Libyan female learners.

Literature Review

First language attrition and its nature
First language attrition refers to the gradual loss or erosion of the first language (L1) as a result of the increasing dominance of the second language (L2). This phenomenon is particularly evident in bilingual speakers or learners immersed in a second language-

dominated environment, where the frequent use of the second language replaces the first language over time. As Schmid (2011) describes, first language attrition is a cognitive and social process whereby decreased exposure to and use of the first language contributes to a gradual loss of fluency.

The severity of this attrition can vary depending on several factors, such as the age at which the second language is introduced, the level of immersion in the second language environment, and the frequency of use of the first language.

In addition, attrition manifests itself in the form of impaired ability to recall vocabulary and grammar. Pavlitkor (2004) emphasizes the emotional and psychological components of first language attrition, especially among younger learners, where the sense of identity associated with the first language may be affected.

Second language dominance and its impact on the first language

Second language dominance occurs when the second language becomes more dominant than the first language. In contexts where learners are immersed in a second language environment, the second language often replaces the first language in everyday communication and social interactions. Factors contributing to second language dominance include the status associated with the second language, the motivation to learn the second language, and the societal advantages associated with second language proficiency. For example, English, as a global lingua franca, is often seen as having higher economic and educational value than many local languages.

In such cases, Montroll (2008) argues that younger learners, especially those in educational systems that emphasize the second language, are particularly vulnerable to second language dominance. This dominance can lead to a gradual shift where the second language is used primarily, eventually leading to the attrition of the first language.

The impact of the second language on the first language among young learners.

Young learners are particularly vulnerable to L1 attrition as a result of L2 dominance. Because of their stage of cognitive and linguistic development, the critical period hypothesis, proposed by Benfield and Roertz (1959), suggests that the brain is more flexible during early childhood, making it easier for young learners to acquire new languages. However, the same flexibility can make the first language more susceptible to attriti on if the second language is introduced at an early age and used frequently.

Paradis (2007) and Cook (2003) highlight that in such cases, young learners of English as a foreign language may exhibit code-switching behaviors where L2 structures influence their L1 use and with language dominance. Second, the retrieval of first language vocabulary, grammar, and even sentence structure becomes increasingly difficult, leading to a gradual decline in first language proficiency. This can have significant cognitive and social implications, as children have difficulty maintaining their linguistic and cultural identities associated with the mother tongue, a phenomenon also discussed by Smith (2010).

English as a second language is dominant in EFL contexts.

In countries where English is taught as a foreign language, such as Libya, English often becomes the dominant second language, which can lead to learners' first language attrition.

Kecskes, I., & Papp (2000) explain that English, due to its global status, is given greater importance in both educational and social contexts. As a result, young learners in these environments may face a situation where the use of English outweighs the use of their own language, accelerating the attrition of the first language.

Furthermore, Kommitz (1984) argues that educational systems that prioritize instruction in English often unintentionally foster environments where the second language dominates the first language. This shift is particularly important in contexts where English is seen as a higher status language, leading to young learners having less exposure to and use of their mother tongue at home or in social situations.

Case studies on first language attrition

Various case studies have highlighted the experiences of young learners who experience first language attrition as a result of second language dominance. For instance, Schmidt and Kopke (2013) documented cases of children who, after being immersed in a second language-dominated environment, faced significant difficulties in maintaining their first language. These case studies consistently show that when the second language becomes the primary medium of communication and education, young learners' ability to speak and comprehend their first language declines significantly.

Kopke and Schmidt (2004) further argue that the rate and extent of first language attrition are influenced by factors such as the level of exposure to the second language, integration into second-language communities, and the learner's motivation to maintain their first language. However, these studies have largely focused on learners in Western contexts and do not account for the unique sociolinguistic challenges faced by young Libyan EFL learners, particularly female learners, in maintaining their first language.

Research Gap: Despite the previous research and its valuable importance, there is limited research on EFL learners (Libyans), where Arabic (L1) is at risk of attrition due to the increasing interest and influence of English (L2) in educational settings. In addition, insufficient attention has been paid to how different cultural and social factors affect L1 retention.

Contribution of this study: This study aims to fill the gap by examining L1 attrition among young Libyan female learners in English-dominated environments. This research will explore how social, cultural and educational factors in Libya affect L1 attrition, and examine whether active language retention efforts by families and educational institutions are able to mitigate the effects of L2 dominance on L1 proficiency.

Methodology

This qualitative case study explored L1 attrition resulting from L2 dominance among young Libyan female EFL learners. The case study method was chosen because it provides an in-depth exploration of the complex social and environmental factors that contribute to L1 attrition, especially in real-world settings where English has become the dominant language.

participant

The participant is a 9-year-old Arabic-speaking girl who has been attending an English-medium school for four years. She was selected for this case study based on her observed signs of L1 attrition, such as a marked decline in her use of Arabic and difficulty with Arabic vocabulary. The participant is the only child in a family where Arabic is the primary language, but exposure to English in school and social settings has led to increased L2 dominance. This makes her a suitable candidate for studying the effects of L2 on L1 attrition.

Data Collection Tools

The data collection process involves multiple methods to provide a comprehensive understanding of L1 attrition:

- Observations: Conducted over four weeks at home and school, focusing on the participant's use of both Arabic and English. Field notes and audio recordings are used to collect data.

- Interviews: Semi-structured interviews are conducted with the participant, her parents, and her teachers. Parents are interviewed about their native language practices and attitudes toward bilingualism, while the participant's interview explores her own perceptions of language use.

Data Analysis

The data will be analyzed using thematic analysis, following the approach of Brown and Clark (2006). Observation and interview data will be coded to identify key themes related to L2 dominance and L1 attrition. Themes such as social pressures, educational influences, and family practices will be explored in relation to the participant's language proficiency.

Results

Interviews

In this study, semi-structured interviews were conducted with a 9-year-old girl, her parents, and her teachers to explore the dominance of English (L2) over Arabic (L1) in her daily life. The aim of these interviews was to explore the child's use of language at home and school from multiple perspectives, including her own, her parents', and her teachers', in order to understand how the dominance of English over Arabic is reflected in her daily interactions.

Questions included: patterns of language preference, any difficulties she faces in using Arabic, and how this shift in language dominance affects her communication and learning. The following are the questions posed to the participant, her parents, and her teachers, along with their responses that reflect the observed patterns of language dominance.

Questions for participation (9-year-old girl)

Q.1 Which language do you feel more comfortable speaking, Arabic or English? And why?

I feel more comfortable speaking English, because I use it all the time at school and with my friends, it's easy for me.

Q.2 When do you usually speak Arabic?

I mostly speak Arabic at home with my parents but sometimes I forget some words, so I switch to English.

Q.3. Do you find it difficult to remember words in Arabic? Can you give me an example?

Yes, sometimes when I try to talk about school or things with my friends, I forget how to say them in Arabic, like math words or things you do in class.

Q.4. *How do you feel when you are asked to speak Arabic at school or at home?*

It seems more difficult, I have to think more when I speak Arabic, English comes to me faster.

Q.5. *How important do you think speaking Arabic is?*

I think it's important because my parents and grandparents speak Arabic, but speaking it all the time is harder.

In sum, during the interview, the child expressed a clear preference for English, describing it as the easiest language to use, especially at school and with friends. The child described Arabic as more difficult and explained that she often forgot words in Arabic, especially when trying to talk about school or personal experiences.

This preference for English reflects the child's increasing comfort and fluency in the second language and her declining ability to use the first language fluently due to the depletion of the first language. When asked about her feelings about Arabic, the child expressed some affection for the language, saying that thinking and responding in Arabic takes longer, suggesting that cognitive processing in the first language has become more effortful, indicating that English use has become more active.

Questions for parents

Q1. *How has your daughter's use of language changed over time?*

When she was younger, she spoke a lot of Arabic, but now she prefers to speak English, especially when talking about school and her friends

Q2. *What language does she use at home, and how does she respond?*

We try to speak Arabic as much as possible at home, but she often responds in English or a mix of the two languages.

Q3. *Have you noticed any difficulty when she speaks Arabic?*

Yes, she sometimes stops and struggles to find the right words in Arabic, she seems to forget some vocabulary she used to know.

Q4. *Does she prefer English to Arabic in any particular situations?*

Yes, especially when talking about schoolwork, friends or watching TV, she naturally switches to English because it is easier for her in these contexts.

Q5. *What do you think of her increasing use of English over Arabic?*

We are proud of her English skills, but we are concerned that she is losing her fluency in Arabic, which is important for communicating with the family and understanding her cultural roots.

In short, the interview with the participant's parents revealed growing concerns about their child's declining use of Arabic. The parents noted a significant shift towards English as the dominant language, particularly in everyday conversation. The parents reported that their child had once been fluent in Arabic but now often resorted to English in most interactions, even at home where Arabic is encouraged.

The parents reported that their child had difficulty remembering certain words or phrases in Arabic, preferring instead to respond in English. This is consistent with a broader pattern of first language attrition where the first language is less frequently used.

Questions for teachers

Q1. How would you describe the student's use of language in the classroom?

The student uses English primarily in the classroom, both when speaking to her peers and when responding to teachers, and even in subjects that include Arabic, she tends to rely on Arabic.

Q2. Do you notice any difficulties when asked to speak or write in Arabic?

Yes, the student hesitates when writing in Arabic and asks for help with vocabulary or spelling, and when speaking, the student mixes English and Arabic, especially when discussing educational topics.

Q3. How does the student interact with her peers in both English and Arabic?

The student speaks primarily in English with her friends, even when they speak Arabic. The student seems more comfortable and confident when using English in social interactions.

Q4. How do her studies perform in both English and Arabic?

She excels in subjects taught in English, showing strong comprehension and writing skills, but finds it difficult to express her ideas fluently.

Q5. What strategies does the teacher use to support both languages, and how does she respond?

She tries to encourage the use of Arabic in specific subjects and during school activities. However, she tends to resort to English whenever possible, especially in group work or discussions.

Summary, the interview with teachers provided valuable insights into the language use and academic performance of the 9-year-old student. Teachers noted that the child communicates primarily in English, both in the classroom and with her peers, even when speaking with fellow Arabic-speaking students. English has become her dominant language, and she appears more confident and comfortable using it.

In educational settings, the student excels in subjects taught in English, and demonstrates strong comprehension and communication skills; however, when asked to use Arabic, she faces noticeable challenges. Teachers reported that she hesitates a lot when speaking or writing in Arabic and has difficulties with vocabulary and grammar. This has affected her performance in subjects that require strong Arabic proficiency, where she needs additional support. Teachers also noted that despite efforts to promote the use of Arabic during specific activities and lessons, the student tends to revert to English, particularly in group work and discussions.

In general, teachers expressed concern about her declining proficiency in Arabic and stressed the need for ongoing support to maintain her proficiency in both languages.

Observations

When observing the language patterns of a 9-year-old EFL learner from a bilingual family, several trends in L1 attrition emerged. At home, the parents spoke Arabic; however, the child frequently responded in English, especially when discussing school-related topics. She hesitated when trying to use Arabic to form complex sentences, and frequently inserted English words where her Arabic vocabulary seemed inadequate. This suggests an increasing reliance on English even in informal family settings.

At school, English was the dominant language in all observed interactions. The child spoke fluently in English with both teachers and peers, and showed no hesitation or discomfort. In contrast, Arabic was rarely used in the school environment, reinforcing the dominance of English and contributing to the child's reduced opportunities to practice her L1.

Questions for participant (9-year-old girl)

Q1. Which language do you prefer using at home and at school? Why do you think that is?

I prefer using English at school because everyone speaks it, and I learn everything in English. At home, I mostly speak Arabic, but sometimes I use English when talking about school stuff.

Q2. In what situations do you mix Arabic and English when speaking? Can you give examples?

I mix them when I forget the Arabic word for something. Like when I say, 'Can you give me the pencil?' in English, but then I might say, 'ممكن تعطني' if I can't remember the word.

Q3. 3. Do you ever find it difficult to speak Arabic? If yes, when does this happen and why?

Yes, it's sometimes hard to speak Arabic when I have to talk about things I learned in school. I can't remember the Arabic words for a lot of the subjects because I learn them in English.

4. When talking about things you learned at school, which language do you find easier to use? Why?

I find it easier to use English because that's the language we use for all the subjects in school. It feels more natural for me to explain things in English.

For Teachers:

Q1. Which language does the child primarily use during classroom activities and discussions?

The child primarily uses English in all classroom activities and discussions. She rarely speaks Arabic in class.

Q2. Does the child switch between Arabic and English in the classroom? If so, in what situations?

She occasionally switches to Arabic when she interacts with Arabic-speaking friends, but these instances are quite rare.

Q3. How would you describe the child's confidence in using English versus Arabic in classroom interactions?

She is very confident using English, almost to the point of being fluent. However, she appears less confident when asked to use Arabic, often hesitating.

Q4. Have you noticed any difficulties or hesitation when the child is asked to use Arabic in class? If so, in what situations?

Yes, she shows noticeable hesitation when asked to participate in activities that require her to use Arabic, especially when responding to questions or giving explanations.

For Parents:

Q1. How often does your child use Arabic at home? In what situations does she use it?

She mostly uses Arabic at home, especially when talking to us, her parents. However, she tends to switch to English when talking to her friends over the phone or during video calls.

Q2. Does your child mix English and Arabic when speaking at home? If so, when does this happen?

Yes, she mixes both languages quite often, especially during casual conversations. For example, she might say, 'I want to watch a فيلم (film)' when talking to us.

Q3. Have you noticed any difficulty or hesitation when your child uses Arabic, particularly when talking about school or other complex topics?

Yes, she hesitates when discussing school-related topics in Arabic. For example, when she talks about math or science, she struggles to find the right Arabic words.

Q4. Has your child's use of Arabic changed over time? If so, how?

Yes, we have noticed that her use of Arabic has decreased over the past year. She used to speak it more fluently, but now she often prefers English.

For Informal Situations (Family or Social Activities):

Q1. When interacting with friends or family members outside of school, which language does the child use more often?

She mostly uses English when interacting with her friends, but she switches to Arabic when talking to older family members, especially during cultural discussions.

Q2. When asking for help or providing answers in informal situations, which language does the child use?

She usually asks for help in Arabic for simple things, but when she's explaining something more complex, she switches to English.

Q3. In informal conversations with older family members or friends, does the child tend to use Arabic, English, or both? Why do you think this is?

She tends to use English with her friends but uses some Arabic phrases with family. I think she feels comfortable with English, but she tries to use Arabic out of respect for our culture.

By using these questions, we were able to effectively observe and document the child's language behavior across different settings, thereby enhancing our understanding of L1 attrition and L2 dominance.

Observations in the home environment indicated that while Arabic was the primary language spoken by the parents, the child frequently responded in English or switched between the two languages. During informal family conversations, the child exhibited hesitation when attempting to speak Arabic, particularly when discussing school-related topics. This pattern of inserting English words or phrases into Arabic sentences suggests a growing reliance on the second language, even in an environment where the first language is emphasized.

In informal interactions, such as seeking assistance or giving brief responses, the child occasionally used Arabic. However, these instances were predominantly limited to simpler phrases relevant to the immediate context. This implies that while the child retains some basic conversational skills in Arabic, she encounters difficulties producing more complex or spontaneous language, which is a significant indicator of first language attrition.

In the school setting, our observations confirmed the dominance of English in the child's language use. The child was immersed in an English-speaking environment, employing English not only during classroom activities but also in informal conversations with friends and peers. This reflects a high level of fluency and confidence in English. Notably, there was minimal use of Arabic in school-related interactions, highlighting the complete dominance of the second language within the educational context. Such an environment reinforces the use of one language over the other, ultimately diminishing the opportunities for practicing the first language.

Discussion

The findings from the interviews and observations provide a comprehensive understanding of the gradual attrition of the first language (L1) among participants, primarily due to the dominance of English (L2) in both educational and social contexts. Several key themes emerged from these findings that contribute to the erosion of L1 proficiency.

1. Environmental and social factors

Observations in both the home and school environments highlight that L2 dominance significantly influences L1 attrition among participants. In the school environment, English is the dominant language, limiting opportunities to use Arabic. Despite parental efforts to maintain Arabic as the primary language at home, the child's increasing preference for English suggests that L2 is increasingly replacing L1.

2. Cognitive effects of L1 attrition

Participants' difficulties in remembering Arabic words and their frustration with speaking Arabic confirm that L1 retrieval is becoming more difficult. This phenomenon can be explained by the activation threshold hypothesis (Schmid, 2011), which posits that infrequent use of the first language raises its activation threshold, leading to slower retrieval and greater cognitive effort when trying to access the first language. The child's preference for English, which is described as faster and easier, reflects this cognitive shift; frequent use of English has made it cognitively accessible, leading her to perceive the first language as difficult and effortful. This cognitive shift is also evident in the child's grammatical errors and her reliance on English sentence structures when trying to communicate in Arabic, indicating her decreased proficiency in her first language.

Conclusions

Through interviews and observations, the results revealed a significant decline in the child's proficiency in the first language (Arabic) due to the strong dominance of the second language (English) in educational and social contexts. The child's increasing reliance on English, coupled with limited opportunities to use Arabic, led to noticeable signs of first language attrition, including difficulty remembering vocabulary, forming complex grammatical structures, and maintaining fluency in spontaneous speech.

This case illustrates that exposure to a foreign language at a very early age can lead to native-like pronunciation; however, the child's loss of her mother tongue raises concerns about maintaining the vernacular. Such situations may occur in other families where the dominance of a foreign language undermines the use of vernacular.

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