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Codeswitching among Trilingual Maghreb International Students: Maghreb-Arabic, French, English

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CODESWITCHING AMONG TRILINGUAL MAGHREB INTERNATIONAL STUDENTS: MAGHREB-ARABIC, FRENCH, ENGLISH

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Abstract

This article reports on a study of the codeswitches produced by three Maghreb Arabic-French-English adult speakers in their informal conversation. The corpus of the data consists of natural data collected by means of audio-recording. The researcher undertook a quantitative analysis of the participants' codeswitches to examine the frequency, patterns and linguistic combinations of these codeswitches. The findings revealed that participants engaged in multilingual communication, with a preference for Maghreb Arabic, though they demonstrated proficiency in French and English. While CS occurred at varying rates among participants, the study identified diverse and complex CS patterns, including both intrasentential and intersentential switches. Notably, participants frequently alternated languages within their turns, with the majority of switches occurring between Maghreb Arabic and French, as well as Maghreb Arabic and English. However, about 12.7% of intrasentential switches involved all three languages. This study offers trilingual data that researchers can use for comparative analyses and reference in their own investigations.

Keywords: codeswitching, trilingualism, quantitative approach, Maghreb-Arabic, multilingual communication

1. INTRODUCTION

The issue of codeswitching (CS) has received considerable attention from researchers, yet it remains an area ripe for further exploration, with notable gaps in the existing literature. A noticeable lacuna is the absence of studies published in leading applied linguistics journals on CS among Maghreb Arabic-French-English speakers. Additionally, it is imperative to recognize that the body of knowledge pertaining to trilingual CS is far from commensurate with the extensive research on bilingual CS. Trilingualism is inherently distinct from bilingualism, and these distinctions are becoming increasingly apparent, as highlighted in the works of scholars such as Allgäuer-Hackl and Jessner (2019), Aronin (2019), Hoffmann (2001b), and Quay and Montanari (2019). Thus, there is an exigency for a comprehensive investigation that delves into trilingual CS. Moreover, there has been a growing call for the collection of trilingual data and its subsequent availability to fellow researchers for comparative purposes.

This study endeavours to contribute to this dynamically evolving field of study by undertaking an examination of CS practices within the context of Maghreb Arabic-French-English adult speakers. The specific focus of this research lies in the exploration of the nonmonolingual language output of participants, with particular attention given to the examination of frequency, patterns, and the number of languages employed in their communicative acts. In doing so, the research aligns with the broader recognition that the examination of CS patterns holds substantial merit, evidenced by the extension of its relevance beyond spoken discourse to encompass written discourse (e.g. Adi, Widyastuti, & Andjani,



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2023). The structure of this article is as follows: it commences with a literature review on the subject of CS. Following this, the article introduces the research questions, offers insight into the characteristics of the participants, and outlines the methods employed for data collection and data analysis. Subsequent sections are dedicated to the presentation of research findings and their discussion. The article culminates in a summary of the outcomes derived from this research, along with the provision of directions for potential avenues of future investigation.

1.1 Research Questions

This research aims to answer the following questions:

RQ1: With what frequency did CS occur among the cohort of participants?

RQ2: What patterns of CS did the trilingual adults employ in their conversation?

RQ3: Which specific combinations of languages were utilized as part of their switching?

2. LITERATURE REVIEW

2.1. Multilingualism as Distinct from Bilingualism

For a long time, no distinction between bilingualism and multilingualism has been made. As Hoffmann (2001a, p. 13) puts it “there is no one definition that trilingualism researchers have adopted” and that “trilingualism is essentially an extension of bilingualism and that until we have firm evidence of qualitative differences in addition to the obvious quantitative ones there is no compelling reason to see trilingualism in a different light” . According to Haugen (1956, p. 9) “several lingualisms can be subsumed under the concept of bilingualism” and he argues that multilingualism is “a kind of bilingualism” . Some researchers have also used the two terms interchangeably (e.g. Clyne, 1998). However, recent studies (e.g. Allgäuer-Hackl & Jessner, 2019; Aronin, 2019; Hoffmann, 2001b; Quay & Montanari, 2019) have showed that trilingualism is different from bilingualism and the difference between the two is becoming more and more evident. According to Aronin (2019, p. 3) multilingualism is “the use of three and more languages and is distinguished. . .from bilingualism, the use of two languages. In this perspective bilingualism is taken to be a special case of multilingualism rather than vice versa” . Additionally, Quay and Montanari (2019, p. 560) state that “[M]ultilingualism should not be seen as a variant of bilingualism but rather be studied in its own right as further evidence of human potential and capacity for language” .

Data from various fields indicate a difference between bilingualism and multilingualism. First, from a psycholinguistic point of view “multilingualism has a higher degree of complexity than bilingualism. In tri-plus multilingualism the number of steps, algorithms, symbols, parts and aspects are more numerous and denser than in bilingualism” (Aronin, 2019, p. 7). Second, in the field of neurolinguistics, Higby, Kim and Obler (2013, p. 68) report that “certain unique properties of multilinguals are beginning to be noticed, particularly regarding early language representation, gray matter density, and speed of lexical retrieval” . A finding which indicates quite explicitly that multilingualism and bilingualism are different. Third, in the area of language teaching, researchers have had keen interest in how prior knowledge of bilinguals may impinge



on the process of learning subsequent languages. Stavans and Hoffmann (2015, p. 147) indicate that TFLA (trilingual first language acquisition) is not “an extension or a variant of BFLA” (bilingual first language acquisition) and that “TFLA is not the sum of three first languages, nor the addition of a third language to bilingualism, but rather it is a unique phenomenon with its own characteristics and features that should be studied in its own right” .

To sum up, taking all of the above into account, one can be on safe ground claiming that the distinction between bilingualism and trilingualism extends being that of quantitative nature and future studies should start using the terms differently. According to Aronin and Jessner (2015, p. 281) “Bilingualism and multilingualism are close, and overlapping in many ways, but, as a bilingual turns into a multilingual, the phenomenon diverges (bifurcates), quantitative and qualitative differences become deeper, to the extent that the nature of the emerging phenomena changes” .

2.2. Terminology Issues

Defining CS has always been a controversial issue among many researchers. Ironically, scholars have not even agreed upon the spelling of the term. Some scholars spell the term as two separate words, some spell it with a hyphen and some as one single word. Moreover, scholars have encountered difficulties in reaching a consensus on a definitive definition for the terminology ‘CS’, as well as in establishing a singular interpretation of the term ‘code’ within the context of ‘CS’. To explain, some scholars refer to code as language (e.g. Muysken, 2000), while others think that code and language are dissimilar (e.g. Gafaranga & Torras i Calvo, 2001). According to Romaine (2000, pp. 61-62), the word ‘code’ in the term CS “is a neutral one and does not commit us to taking a decision as to whether the varieties or codes concerned constitute languages or dialects” , which highlights her opinion that switching between languages for bilinguals is comparable to “switching between styles and dialects” for monolinguals. In the current study, I use code and language interchangeably.

As is the case with almost every linguistic concept, terminology issues do exist when it comes to defining the term CS. Different researchers from different disciplines and even those working in the same field have different perceptions of the notion of CS. As a result, I consider it crucial to provide the reader with some literature to illustrate this point. According to Milroy and Muysken (1995, p. 12) “the field of code-switching research is replete with a confusing range of terms descriptive of various aspects of the phenomenon. Sometimes the referential scope of a set of these terms overlaps and sometimes particular terms are used in different ways by different writers” . Such confusion can be attributed to the fact that “scholars do not seem to share a definition of the term. This is perhaps inevitable, given the different concerns of formal linguists, psycholinguists, sociolinguists, philosophers, anthropologists, etc.” (Nilep, 2006, p. 1). Furthermore, different types or patterns of CS contributed to the confusion in defining the term ‘CS’. For example, code changing, CM and CS were three terms representing various types of CS (McClure, 1977). ‘Code changing’ referred to the alternate use of two languages between sentences. CM referred to using different languages at the sentence boundary. CS was the cover term for both code changing and code mixing (Backus, 1992a; Bokamba, 1988). In a similar manner, Haugen (1956, p. 40) uses different terms to describe the use of more than one language, that is interference, alternation and integration. “Interference is the overlapping of two



languages, alternation is switching between two languages and integration is lexical borrowing from one language into other” .

In conclusion, literature on CS is rich in various definitions of CS. However, for the purpose of this study CS is defined as the use of more than one language within sentence boundaries or between sentences in the same conversation.

3. METHODS

3.1. Participants

The study engaged a cohort of three trilingual adult participants pursuing their academic endeavors in Hungary. These participants, all male, have an average age of 23.3 years. They share a commonality with their parents in terms of nationality, with two hailing from Morocco and one from Algeria. The participants exhibit a diversity of socioeconomic backgrounds and are enrolled in various academic disciplines, encompassing fields such as chemical engineering and tourism management. Their linguistic journey is characterized by sequential acquisition of Arabic, French, and English, achieved through a combination of natural exposure and formal educational channels. French language acquisition commenced during primary school, while English was introduced during their intermediate schooling years. The participants self-reported their proficiency in French and English, albeit with varying degrees, and identified themselves as habitual code-switchers. Within their familial context, Arabic is the exclusive language spoken by their parents, rendering it the primary linguistic environment. Although their siblings converse in multiple languages, the participants were raised in a predominantly monolingual household. These distinct biographical details serve as crucial insights into the participants' CS behavior. A summary of the participants' key attributes and responses to the questionnaire is presented in Table 1. To preserve privacy, pseudonyms have been employed in place of their real names.

Table 1. Characteristics of participants

Participant	Nationality	Age	Language	AO		LP (%)		YL		Language preference	Degree
				F	E	F	E	F	E		
Yassin	Moroccan	23	A/F/E	10	15	65	50	13	8	A	MA
Walid	Algerian	22	A/F/E	9	11	80	80	12	9	A	MSc
Gafor	Moroccan	25	A/F/E	5	13	85	70	17	8	A	MSc

Note. A = Arabic; F = French; E = English; AO = Age of onset; LP = Level of proficiency; YL = Years of learning; MA = Master of Arts; MSc = Master of Science.

3.2. Data Collection Procedure

Data collection transpired within the environment of a laboratory setting. The set of data encompasses a single uninterrupted session that spanned 58 minutes and 27 seconds. The selection of a laboratory as the data collection venue was deliberate, grounded in several



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considerations. Primarily, the laboratory is situated on the participants' university campus, rendering it a familiar and conducive setting for their engagement. Importantly, the laboratory is equipped with state-of-the-art audio recording equipment, ensuring optimal recording quality and acoustic clarity for the captured conversation. Its inherent tranquility mitigates the risk of interruptions, facilitating the collection of undisturbed data.

The recorded session consisted of an informal conversation among the participants. In adherence to the study's commitment to capturing naturalistic data, it is imperative to highlight that the discussion was neither guided nor manipulated in any manner; participants were not provided with any specific instructions. The participants retained full autonomy over the choice of topics discussed and the languages employed during the conversation. In an effort to avoid undue influence on CS occurrences or the participants' customary conversational patterns, limited information regarding the study's true nature was disclosed to them.

3.3. Data Analysis Procedure

The researcher conducted a quantitative data analysis, aligning with the research questions posed. The quantitative data analysis process followed a chronological sequence of procedures. To initiate the process, the recorded conversation underwent manual transcription. To ensure linguistic precision and authenticity, a native Maghreb Arabic speaker aided in the transcription. Furthermore, the transcription underwent a validation process, with a second native Maghreb Arabic speaker cross-verifying the accuracy. Next, the conversation was segmented into discrete turns and utterances. Codeswitched elements were identified. Finally, the data was presented in tables and discussed.

4. RESULTS AND DISCUSSION

In this section, the data is presented through tables, offering an overview of key aspects related to CS, including frequency, patterns, and the linguistic combinations of codeswitches observed within the collected dataset. Specifically, the tables illustrate details such as: percentages of CS instances by each participant, the count of codeswitches occurring at both the intrasentential (within a sentence) and intersentential (across sentences) levels for each participant, as well as detailed information concerning the combinations of languages employed in each observed switching pattern within this specific linguistic context. Prior to delving into the data presentation, it is deemed imperative to provide a clear definition of the term 'utterance' to ensure a shared understanding of the fundamental unit of discourse under examination. As defined by Cook (1989), "an utterance is a concise, intuitively defined unit of discourse, which may or may not possess formal interpretability as a complete sentence" (p. 158).

4.1. Frequency of Switches

In this section I provide a brief answer to my first question: With what frequency did CS occur among the cohort of participants? My findings are summarized in Table 2, Table 3 and Table 4.

Table 2. Number of utterances in each of the three languages by each participant



Participant	Maghreb Arabic	French	English	Total
Yassin	173	13	14	200
Walid	254	41	65	360
Gafor	251	24	26	301
Total	678	78	105	861

Table 2 presents a comprehensive overview of the number of utterances made by each participant in three languages during the conversation. The participants actively engaged in multilingual communication, expressing themselves primarily in Maghreb Arabic and, to a lesser extent, in French and English. Yassin, who contributed 200 utterances to the conversation, employed Maghreb Arabic as the dominant language, followed by French and English. Walid contributed a total of 360 utterances to the conversation, making him the most prolific participant. He utilized Maghreb Arabic as the primary language for communication, followed by English and French. Notably, his substantial use of English indicates a higher level of proficiency in this language. Gafor actively participated with 301 utterances, favoring Maghreb Arabic as the primary language of communication, similar to the other participants.

In total, the participants contributed 678 utterances in Maghreb Arabic, 78 in French, and 105 in English, amounting to a total of 861 utterances. This distribution reflects the participants' comfort with and inclination towards Maghreb Arabic as their preferred mode of communication while remaining proficient in French and English.

Table 3. Percentage of CS by each participant

Participant	Number of utterances	Number of switches	Percentage of CS
Yassin	200	133	1.5%
Walid	360	148	2.4%
Gafor	301	149	2%

Table 3 presents data on the percentage of CS by the three participants. I counted the total number of utterances produced by each participant and compared these to the number of each one's switches to find each participant's proportion of CS. It is notable that Walid, with 360 utterances, had a higher CS percentage of 2.4%. This indicates a relatively greater use of CS in his communication.

Table 4. Number and directionality of all the alternations within and between turns

Participant	A→E	A→F	E→A	E→F	F→A	F→E
Yassin	89	73	84	2	69	8
Walid	58	75	54	12	83	3
Gafor	70	111	68	3	106	1



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Total	217	259	206	17	258	12
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In Table 4, the data is presented for the number and directionality of alternations within and between turns among the three participants. The participants' alternation data is segmented into six categories, representing different language combinations and directions of communication. Notably, Yassin displayed the highest incidence of 'Arabic into English' alternations (89), while Gafor demonstrated a preponderance of 'Arabic into French' alternations (111). An interesting observation is the comparatively lower occurrence of 'French into English' and 'English into French' alternations (totalling only 12 and 17 respectively).

It is worth mentioning that Gafor's linguistic behavior stands out in this dataset. Gafor predominantly alternates between English and French between turns, as opposed to Yassin and Walid, who tend to alternate between the two languages within turns. Additionally, Walid's alternation from French to English occurs only between turns, setting him apart from Yassin, who alternates both within and between turns in the same language pair.

4.2. Patterns of Switches

In this section I provide a brief answer to my second question: What patterns of CS did the trilingual adults employ in their conversation? My findings are summarized in Table 5.

Table 5. Number of intrasentential and intersentential switches by each participant

Participant	Yassin	Walid	Gafor
Number of intrasentential switches	128	128	135
Number of intersentential switches	5	20	14
Total	133	148	149

The data presented in Table 5 offers insights into the distribution of CS types among the participants, shedding light on how they incorporate language switching within and between sentences. It is important to note that only intersentential switches within a participant's turn are counted. Had intersentential switches between turns by the same participant been included, the numbers of intersentential CS would have been higher.

4.3. Languages Involved in the Switches

In this section I provide a brief answer to my third question: Which specific combinations of languages were utilized as part of their switching? My findings are summarized in Table 6.



Table 6. Languages involved in intrasentential switches

Languages	A & F	A & E	F & E	A & F & E
Number of switches	190	151	0	50

Table 6 provides data on the languages involved in intrasentential CS among three languages. The majority of intrasentential switches predominantly occurred between any two of the three languages: Maghreb Arabic and French (190 switches) and Maghreb Arabic and English (151 switches). Notably, there were no recorded switches between the languages French and English. Additionally, 50 switches involved all three languages (Maghreb Arabic, French & English), accounting for approximately 12.7% of intrasentential switches. While this percentage does not perfectly align with previous research (cf. Hoffmann & Stavans, 2007), the finding that the least number of intersentential switches involve a combination of three languages indicates a notable degree of consistency.

5. CONCLUSION

In summary, this study examined CS behaviors among a group of trilingual adult participants pursuing academic endeavors in Hungary. The research addressed three primary questions: the frequency of CS, patterns employed in CS, and the specific language combinations used in CS. The findings revealed that participants engaged in multilingual communication, with a preference for Maghreb Arabic, though they demonstrated proficiency in French and English. While CS occurred at varying rates among participants, the study identified diverse and complex CS patterns, including both intrasentential and intersentential switches. Notably, participants frequently alternated languages within their turns, with the majority of switches occurring between Maghreb Arabic and French, as well as Maghreb Arabic and English. However, about 12.7% of intrasentential switches involved all three languages. While our research provides insights into trilingual CS, the limited sample size raises concerns about generalizability. Further research should conduct a comparative analysis of CS patterns in diverse contexts, such as academic and workplace settings, to gain a more comprehensive understanding of trilingual communication dynamics.

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