SYNTACTIC ANALYSIS OF INTRA-SENTENTIAL ARABIC–ENGLISH CODE-SWITCHING WITHIN VERB PHRASE

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ABSTRACT

The current study aims at analyzing the syntax of Arabic-English intra-sentential code-switching within verb phrase boundaries and finding out how this type of code-switching is performed. Particularly, this study investigates the speakers' maintenance of their Arabic syntactic structure ant word order while inserting English constituents at verb phrase level. In addition, it examines the effect of the originated patterns on Arabic structural rules and examines the validity of equivalence constraint provided by Poplack in Arabic-English intra-sentential code-switching. To this end, a qualitative approach is operated to gather the research data; the qualitative data are collected from Facebook chats and comments between Jordanian university students while they are communicating on Facebook. Then, conversational analysis technique is used to analyze the syntactic aspects of VP patterns of intra-sentential Arabic-English code-switching. Furthermore, clarification of some grammatical differences between Arabic and English is provided along with analysis. The findings showed that there are thirteen patterns performed within VPs despite the grammatical differences between the two languages. These patterns sometimes violate the grammatical rules of English. Meanwhile, the grammatical rules of Arabic are not affected by intra-sentential code-switching performed within VPs. That means Jordanian Arabic–English code-mixing violates the universal constraint of 'equivalence' proposed by Poplack (1980). The study provides a potential theoretical implication for the Arabic Language Academies in the Arab World by encouraging them to cooperate to carefully ponder the implications of this code-mixing, and they should coin Arabic words for all new English terms, especially those related to the technological and scientific innovations.
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Keywords: Language contact; Intra-sentential code-switching; Syntactic Analysis; Poplack**'s** Equivalence Constraint; Verb Phrase.

INTRODUCTION

Languages are not completely sufficient by themselves. The necessity of communication leads to contact between speakers of different languages. Accordingly, changes in languages are the result of language contact. Linguistic and social contact between languages for long term results in a number of sociolinguistics processes, including borrowing, code-switching, and interference (Sebba, 1997). Rouchdy (2002) collected a number of studies that investigated the notion of language contact in Arabic language and asserted that codeswitching, borrowing, and interference phenomena occur whenever languages are in contact with one another. That is, English-Arabic

code-switching is familiar in everyday verbal interaction among bilingual speakers (Aldaw, 2019; Al-Ahdal, 2020; Benattabou, 2020).

Code-switching is one of the most unique speech styles that occurs to characterize bilingual speakers (Fromkin et al, 2014). Weinreich (1968) stated that code-switching and code-mixing are fundamental consequences of language contact, and this language contact is always tied with code-switching (Lafont, 1990). Furthermore, Sinha (2009) indicated that code-switching is considered as a logical result of bilingualism. According to many scholars, code-switching is classified as one of the conversational methods that speakers use to attain desired purposes. Grosjean (1982) identified code-switching as a phenomenon that happens when two or more languages are used by the same speaker in the same conversation. For Thomason (2001, p. 132), code-switching is "the use of material from two (or more) languages by a single speaker in the same conversation". Moreover, Brown and Attardo (2006) used the term style-shifting in order to refer to code switching. Accordingly, code-switching includes shifting between two different languages, dialects, or styles within the same context.

In fact, code-switching phenomenon is observed between Arab bilinguals who tend to use English expressions in their speech (Alazzam, 2010). Al hazmi (2016) and Hamers and Blanc (2000) recognized four types of code-switching. The four types are classified on the basis of the length of switched items, and they are as follows: Inter-sentential or code-switching where switching is performed between clauses or sentence boundaries, Intra-sentential code-switching where switching is performed within a clause or a sentence, Tag-switching where a constituent is tagged from one language to an utterance from another language, Intra-word code-switching where switching is performed within a word boundary. As a matter of fact, scholars generally focus on distinguishing between inter-sentential and intra-sentential code-switching because there is an overlapping in using them. Gerson (1982) indicated that discriminating the two terms is not an easy task. Bader (2003) confirmed that the two terms are closely related, and they are used interchangeably. Singh (1983) indicated that inter-sentential code-switching and intra-sentential code-switching are closely related phenomena and there is always an overlap between the two terms, then they are used interchangeably. Muysken (2000, p.3) stated that intra-sentential code-switching is "the insertion of an alien lexical item or phrasal category into a given structure", and he added that inter-sentential code-switching is the shifting between languages in the same discourse. The researchers of this study highlight that the two phenomena imply the same concept of mixing more than one language in the same discourse; yet each phenomenon presents the concept in a distinguished manner that may overlap with the other. Consequently, what occurs in the Jordanian context, is just a process of insertion English items within Arabic discourse (intra-sentential code-switching). Intra-sentential code-switching is a widely spread phenomenon in Jordanian society, and then it is investigated in the current study. Intra-sentential code-switching manifestly appears in universities between young people (Hussain, 1999). Hussain examined code-alternation (code-switching and code-mixing) that is performed by university students. The results showed that the students frequently insert English constituents in their speech. Alazzam (2010, p. 69) also revealed that intra-sentential code-switching is used by the vast majority of Yarmouk university students. That is, English is one of the international languages that is widely spread and spoken in the world. Youth community is considered as one of the best communities that uses English within their speech.

Truthfully, English is widely used among Jordanians in daily communications. English is one of the main subjects that Jordanians study at schools and universities. It is also used on the social media and in streets. Additionally, a huge number of young people in Jordan listen to English songs and watch English series and movies. Moreover, many electronic newspapers are published in English such as Ammon and Jordan Times. In fact, getting a good position in Jordan needs having a good mastery of English (Al Musa, 2016). According to Al-Hayek (2016), there are many social motivations for using English among Jordanians especially university students; one of the motivations is that speaking English is a sign of prestige and showing off. Accordingly, intra-sentential code-switching is a widespread phenomenon in university setting, including Yarmouk University (Hussein, 1999; Alazzam, 2010; Al Hayek, 2016). Thus, the current study concentrates on the syntactic structure of VP in the mixed Arabic and English constituents. Then, this study is directed to achieve the following objectives:

  i. To investigate the syntactic aspects of VPs patterns of Arabic–English intra-sentential code-switching.
  ii. To examine the validity of equivalence constraint provided by Poplack in Arabic-English intra-sentential code-switching.
  iii. To find out the extent to which the used English constituents affect Arabic sentence structure.

REVIEW OF RELATED LITERARURE

Code-switching has often been thought about as an accidental behavior that originated semi-legalism (Grosjean, 1982). Code-switching employ items from two languages that sometimes have distinguished grammatical systems in the same utterance. Therefore, a number of scholars assert that intra-sentential code-switching is subject to grammatical constraints and "it has the potential to produce utterances that violate the structural properties and rules of one or both languages" (Sauvé, 2000, p.8). Poplack and Sankoff (1988, p. 1175 cited in Sauvé, 2000, p.8) stated that "bilinguals are capable of incorporating their two languages into a single utterance without violating the grammatical rules of either language". That is, intra-sententia code-switching can occur when the two languages are incompatible with respect to their inflectional morphology, word order, semantic differences, sub-categorization patterns, and idiomatic constructions (Wheeler & Westwood, 1987 cited in Sauvé, 2000). According to Sauvé (2000) there are two fundamental theories that have been introduced to describe linguistic constraints on code-switching: Poplack's structural constraints (1980) and Myers-Scotton's Matrix Language Frame Model (1993).

Poplack (1980) and Myers-Scotton (1993) indicated that intra-sentential code-switching is not an incidental behavior; rather it is subject to syntactic constraints. Additionally, Auer (1984) stated that code-switching has to be analyzed from several perspectives: grammatical, sociolinguistic, and interactional sociolinguistic perspectives. Grammatical perspectives are one of the most essential perspectives, that is, they are mainly interested in the syntactic constraints and the rules that govern switching.

Furthermore, Btoosh and Taweel (2012, p.1) asserted that intra-sentential code-switching is not applied by chance. They suggest that "There are no limits to what language may alternate roles, but there are constraints on how this may occur. Code-switching may be motivated by social,

pure linguistic or syntactic reasons." Nafa (2013) examined code-switching among Arabic-English adult bilinguals in the UK. She mainly concentrated on the grammatical structure of this switching. The research data were gathered from tape-recorded informal conversations lasting approximately five to six hours. Six female informants participated in this research in addition to the researcher herself. Data analysis showed that the Arabic language is implied to be the base language in most conversations. Additionally, the data introduced two grammatical structures of Arabic-English code switching, and they are insertion and alternation, the former is more common in the switching.

Aldaw (2019) studied the constraints of code mixing and code switching in Arabic and English in Arabic societies. Aldaw examined the instances of switching with regard to the structural typological and morphological constraints. The data were randomly collected from spontaneous oral interactions of the Arabic-English users through observation, conversation, in addition to TV dialogues and mass media. The data were analyzed in terms of content and revealed that there are constraints govern Arabic-English code switching to achieve communicative purposes, and then the switching is not happening randomly. The findings included the structure, frequency, and constraints of code-mixing. Some of the findings were as follows: speakers tend to mix full words more than empty words. The size of the constituent of the matrix language is not always equal to size of the constituent of the embedded language. The grammatical structure is sometimes violated because of the typological differences between Arabic and English. In addition, the findings confirmed that Arabic and English code switching is possible across the typological boundaries although the two languages are not from the same family.

Although Arabic and English have different grammar, intra-sentential code-switching is possible at different grammatical levels and discourse boundaries such as noun phrase, verb phrase, prepositional phrase, adjectival phrase, and adverbial phrase (Alhazmi, 2016 cited in Alamaren, 2021). Al-Thunaibat and Singh (2020, p.13031) pointed out that "Syntactic literature regarding the grammatical structure of code switching is not clear, yet". That means more research needs to be implemented to investigate constraints the control code switching, particularly the syntactic ones. Al-Thunaibat and Singh (2020, p.13030) confirmed that there were "sub-gaps in terms of the theories which discuss code switching". Accordingly, this study aims at investigating the syntactic aspects of intra-sentential code-switching on Facebook and finding out the extent to which Arabic-English intra-word code-switching affects Arabic structure. Indeed, Facebook, which is the largest imaginary and computer simulated community, is considered as one of the main social media that students use in universities to keep in touch with their friends and colleagues. Facebook is treated as a medium of spoken and written language in which trends of code-mixing among university students in informal social domains are identified (Bukhari et al., 2015). Bukhari et al., (2015) added that code-switching has produced an essential effect on language users of the daily face-to-face conversations as well as in online computer- mediated communications, including Facebook.

METHODOLOGY

Sample of the Study

The sample of this study consists of Jordanian students studying in Yarmouk University, in Jordan. Intra-sentential code-switching utterances are collected through Facebook chats and comments between university students. These chats are performed during the period of Corona Virous

Pandemic when the students were studying online. As a matter of fact, Yarmouk University is considered as one of the biggest universities in the Middle East.

Intra-sentential code-switching attracts scholars' attention and many Jordanian scholars investigated this switching, particularly, it is widely spread in university settings among student (Alazzam, 2010; Al-Hayek, 2016; Alamaren, 2021). During the pandemic of Corona Virous, 35 students were requested to contact each other online via Facebook. That is, the sample of this study is purposive. In this sense, the size of the sample does not affect the quality of both the research design and the results of research (Holloway & Wheeler, 2010). Accordingly, the researcher selects a purposive sample that is enough to achieve the research objectives. That is, the purposive sample examines the whole scope of issues (Cohen et al., 2000). Furthermore, Patton (2002, p.230) stated that purposive sampling intends to come out with an "insight and in-depth understanding" of investigation of a subject.

Data Collection

The data are collected from natural contexts that occur in Facebook chats and comments. In order to find out the syntactic aspects of mixing Arabic and English within VPs, qualitative data are gathered from code-switching instances presented by the students while they are communicating on Facebook. Additionally, the qualitative analysis provides answers concerning both the validity of equivalence constraint and the effect of the inserted English items on Arabic sentence structure.

Qualitative Analysis

Conversation analysis is applied to investigate the real interaction among the students. Schegloff (1987) indicated that conversational analysis is a method of analysis that allows the researcher to empirically test the distinguished features of recorded conversations in interactions. Al hazmi (2016) pointed out that the conversational analysis enables identifications of patterns of code-switching according to syntactic categories. To come up with a detailed description for the occurrence of intra-sentential code-switching within VPs, qualitative approach in the current research relies on inductive forms of analysis; The inductive form enables to explore the effect of the mixed examples on Arabic sentence structure. Moreover, the deductive form is applied to check the validity of Poplack's equivalence constraint.
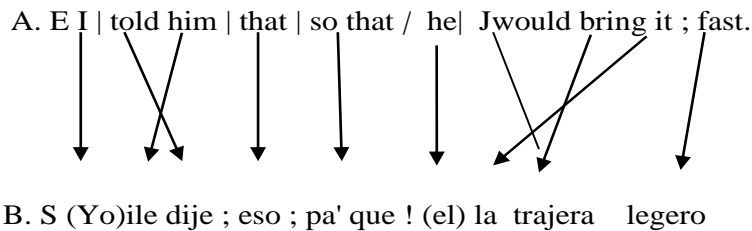
THEORETICAL FRAMEWORK

Poplack (1980) signified that the occurrence of code-switching is restricted by linguistic factors as well as extra-linguistic factors. Poplack (1980) is one of the main studies on code-switching and code-mixing that introduced the universal syntactic constraints of equivalence, size of constituent, and free morpheme. Several studies were employed for the purpose of examining the universality of her proclaimed universal constraints (Al hazmi, 2016). Redouan (2005, p.1922) asserted that Poplack's universal constraints "have been subject to controversy when applied to different language pairs". It would not be an exaggeration to say that most of the linguistic studies on code-switching have concentrated on testing the universality of her proclaimed general constraints

e-Bangi Faculty of Social Sciences and Humanities
Universiti Kebangsaan Malaysia
Journal of Social Sciences and Humanities

Vol. 19. No. 5 (2022). 136-151. ISSN: 1823-884x

(Park, 1990; Al hazmi, 2016). The current study mainly investigates the equivalence constraint concerning verb phrase patterns of Arabic-English code-switching. The following section explains the equivalence constraint in detail.

Equivalence Constraint

The equivalence constraint denotes that switching is prevented within a constituent triggered by a rule that is not shared between the involved languages. That is, the structure of the involved languages should be similar. An example from Spanish-English code-switching is given by Poplack in the following figure:

A. E I | told him | that | so that / he| Jwould bring it ; fast.

B. S (Yo)ile dije ; eso ; pa' que ! (el) la trajera   legero

Atawneh (1992) introduced the following example that supports and matches equivalence constraint in Palestinian Arabic–English code-switching:

inti ahla sister fi d- dinya   (Palestinian Arabic)
you most beautiful sister in the world   (Literal Translation)
'You are the most beautiful sister in the world.'   (English)

The insertion of the English word 'sister' is grammatical in both Arabic and English and matches equivalence constraint. On the other hand, Lee (1997, p. 54) indicated that this constraint is violated by Spanish-English bilinguals. Thus, switching between nouns and adjectives is possible, and it violates either English word order (adjective before noun) or Spanish word order (noun before adjective), as in the example below:

'mi brother *grande'*
'mi grande brother'

Accordingly, investigating Jordanian Arabic-English intra-sentential code-switching and testing the validity of the equivalence constraint proposed by Poplack help explore how the various syntactic constituents affect Arabic syntactic structure, and whether this switching affects Arabic identity. That is, code-mixing is spreading in Jordan, and it is described as a real danger on the pureness of Arabic as well as the national identity (Alazzam, 2010). Based on that, code-mixing has to be grammatically analyzed in order to highlight the consequences of its spreading (Al-Rowias, 2012).

Kniaź and Zawrotna (2021) investigated Arabic-English code switching. They mainly analyzed Embedded English verbs in Arabic-English code-switching in Egypt; patterns of English verb insertion into Arabic, and the factors affecting them. The research data were collected through interviews with students at the American University in Cairo, the researchers managed to gather 14,414 clauses included Arabic/English code switching. Then, the data were analyzed quantitatively. The findings revealed that patterns of verb insertion in Arabic-English code-switching are consistent with the Matrix Language Frame Model. The recurrent patterns of verb insertion are as follows: First, in non-past tense inserted verbs are morphologically integrated with Arabic. Second, most third-person plural verbs in non-past forms show incomplete assimilation lacking the plural suffix -*u*. Third, past forms are inserted as either past forms or bare forms with the Arabic auxiliary to mark the tense. Fourth, English verbs are never cliticized with Arabic pronoun complements; instead, English pronouns are used.

Although there are grammatical differences between Arabic and English, Al hazmi (2016) revealed that code-switching is possible at different grammatical levels and discourse boundaries such as noun phrase, verb phrase, prepositional phrase, adjectival phrase, and adverbial phrase. Accordingly, the equivalence constraint universality has to be checked in Jordanian Arabic–English language pair. The current study investigates and analyzes Arabic–English code-mixing within verb phrase. As a sum, this study is undertaken to highlight the structural and syntactic analysis of Arabic–English code-mixing within verb phrases (VPs), particularly, it investigates the syntactic aspects of VPs patterns of this code-mixing.

FINDINGS

Syntactic Aspects of Arabic–English Code-Mixing within Verb Phrases

The qualitative analysis shows that intra-sentential code-switching is common and regular on Facebook conversations among university students. That is, 199 utterances of intra-sentential code-switching are found in the current study. The originated examples are found within 18 posts and 48 comments. The data show that Arabic-English code-mixing happens at various English syntactic categories including Noun Phrase, Verb Phrase, Adjective Phrase, and Adverb Phrase. This study focuses on analyzing the code-mixing that happens within VP boundary, which is the main concern of the study. 48 utterances are recognized as mixing between Arabic and English within VP boundary, and they are particularly analyzed to meet the objectives of this study. However, code-mixing that happens at other English syntactic categories are beyond the scope of this study and then it is considered to be one of the limitations. Worth noting is that code-mixing within VPs is performed in two directions: either from English to Arabic or from Arabic to English. However, the later was more frequent. The following examples explain the manners, in which mixing within VPs is used.

Example 1

'Ehkeloh y-**text it**'   (Arabic)
'Tell him to text it'   (English)

Example 1 indicates that the English verb 'text' and its pronoun complement 'it' are inserted within Arabic talk. This pattern of mixing attached the masculine marker 'y' to indicate that the subject is masculine. Such rule does not exist in English. That is Arabic language sometimes indicates the subject and the verb in the same lexical item (Khalil, 1999). The following is another example that attached the Arabic prefix 's' to the English verb in order to indicate the speaker voice.

Example 2

' b-**save** elmohadarat '	(Arabic)
'I save lectures'	(Literal Translation)
' I save the lectures'	(English)

Example 3

'la **don't come** hon'	(Arabic)
' no do not come here'	(Literal Translation)
'No, do not come here'	(English)

Example 3 shows that negation is performed in English; the English auxiliary 'do not' precedes the English verb 'come'. On the other hand, example 4 below, which has limited frequency in the current study, shows that negation is performed in Arabic; the Arabic negative particle 'ma' precedes the English verb 'cancel'.

Example 4

'la ma t-**cancel**-hum.	(Arabic)
'no let she-cancel-them'	(Literal translation)
'No, do not let her cancel them'	(English)

Example 4 indicates that although the verb is used in English, negation particle is performed in Arabic. Furthermore, the English verb is used with no tense marker. Moreover, Arabic inflectional morphemes 't' and 'hum' are attached to the English verb to inflect gender and number of the subject and number of the object. In other words, the English verb is treated as its Arabic Equivalent verb since Arabic verbs inflect gender and number of the subject as well as gender and number of the object (Khalil 1999). Thus, contrary to English, Arabic can form subject, verb, and object within the same word.

Example 5

'Lama **share it'**	(Arabic)
'Lama shared it'	(Literal Translation)
'Lama shared it'	(English)

Example 5 asserts that English verbs are used without any consideration of the required demands of the tense markers. That is, the past tense marker 'ed' is not used and the inserted English verb is used in its base form although that the action was done in the past tense. The following examples (6 and 7) also show that the third person present tense marker 's' and present continuous 'verb to be +ing' are missing in the mixed utterances:

Example 6

'Ali **occupy** awal markaz'   (Arabic)
'Ali occupies first position'   (Literal Translation)
'Ali occupies the first position'   (English)

Example 7

'wait **for** elsef'   (Arabic)
' wait for the summer'   (Literal Translation)
'I am waiting for summer'   (English)

The current research data showed that using the English 'verb to be' triggers English complements, consider the following examples:

Example 8

'eljaw **is bad**'   (Arabic)
'the weather is bad '   (Literal Translation)
'The weather is bad'   (English)

Example 9

'eltollab **are there**'   (Arabic)
'the students are there'   (Literal Translation)
'The students are there'   (English)

Example 10

'had elktab **is mine**'   (Arabic)
'this book is mine'   (Literal Translation)
'This book is mine'   (English)

Contrary to the previously presented examples, the following examples use Arabic verbs and English complements. That is, example 9 uses an English object 'quiz' as a complement for the Arabic transitive verb 'emil' which means 'did'.

Example 11

'eddoctor emil **quiz**'   (Arabic)
' the professor made quiz'   (Literal translation)
'The professor made a quiz'   (English)

On the other side, some examples used English indirect object as a complement for the Arabic verb as in the following example:

Example 12

'eteeni **your attention'**   (Arabic)
'give me your attention'   (Literal Translation)
'Give me your attention'   (English)

Additionally, the data revealed that Arabic verb can be combined with English adverb as a complement as in the following example:

Example 13

' wselet **early**'   (Arabic)
' I arrived early'   (Literal Translation)
' I arrived early'   (English)

Furthermore, the complement of the Arabic verb could be an English preposition or prepositional phrase, but the later occurs more often than the former. The following examples present such patterns of mixing:

Example 14

'haket **with her**'   (Arabic)
' I talked with her'   (Literal Translation)
'I talked with her on messenger'   (English)

Example 15

'estnnet **for this**'   (Arabic)
' I waited   for this'   (Literal Translation)
'I waited too long for this'   (English)

Example 16

' rohet **with** akhoy'	(Arabic)
' l went with my brother'	(Literal Translation)
' l went with my brother'	(English)

Finally, example 17 below shows that Arabic verb can be followed by an English adjective:

Example 17

'el akel kan **good**'	(Arabic)
' the food was good'	(Literal Translation)
'The food was good'	(English)

Table 1 below shows the patterns on mixing within VP. It presents the occurrences of those patterns and percentages.

Table 1: Patterns of Arabic-English Code-Mixing at Verb Phrase Boundary

Patterns of mixing within VPs	No. of Occurrence (out of 48)	Percentages %
English verb-Arabic object	6	12.5%
English verb-Arabic pronoun	2	4.6%
English verb-English pronoun	4	8.3%
English verb-English preposition	3	6.2%
English verb-Arabic prepositional phrase	1	2%
English 'be'-English complement	4	8.3%
English negation-English verb	3	6.2%
Arabic negation-English verb	2	4.6%
Arabic verb- English object	12	25%
Arabic verb-English preposition	1	2%
Arabic verb- English prepositional phrase	3	6.2%
Arabic verb-English adverb	3	6.2%
Arabic verb-English adjective	4	8.3%

DISCUSSION

The data analysis revealed that Arabic and English can be mixed within verb phrase despite the grammatical differences between them. The findings of the current study introduced 13 patterns of mixing at verb phrase boundary. Three patterns mixed English verbs and Arabic complement: mixing English verbs and Arabic direct objects, English verbs and Arabic prepositional phrase, and English verbs and Arabic pronouns. On the other side, five patterns mixed Arabic verbs and English complements: mixing Arabic transitive verbs and English direct and indirect objects, Arabic verbs and English prepositions, Arabic verbs and English prepositional phrases, Arabic verbs and English adverbs, and Arabic verbs and English adjectives. Furthermore, the data reveled that the students prefer to use English complements for English verbs rather than Arabic

complements if the complement is a pronoun or a preposition (see table 1). Moreover, students prefer to make negation of the verb in the same language in which the verb is performed as in example 3. As a matter of fact, the using English verb 'be' is always followed by an English complement as in examples 8, 9, and 10.

The data showed that English verbs are sometimes treated as their Arabic equivalents. That is, they are sometimes attached to Arabic markers in order to inflect gender and number of both the subject and the object as in examples 1, 2, and 4. Accordingly, English verbs are sometimes morphologically integrated into Arabic, that is, inserting English verbs followed Arabic inflectional rules. On the other side, inserting English verbs within Arabic talk damages the grammatical rules of English, and all the required English inflections like 'ed' past tense, 's' third person present tense, and progressive verb 'be' and 'ing' markers are ignored as in examples 5, 6, and 7. As a conclusion, the inserted English verbs are always used in their base form.

Regarding word order mechanisms, the students most of the time kept using congruence word order that goes with both languages without any violations. Nevertheless, forming a whole clause consisting of subject and verb or verb and object by using one word is considered inappropriate according to the English structural rules as in examples 1, 2 and 4.

The findings of the current study contradict Poplack's findings regarding Spanish-English intra-sentential code-switching. That is, Poplack indicates that code-mixing is governed by the 'equivalence' constraint which demands equivalence structure between the mixed languages. Equivalence constraint prevents code-mixing when the involved languages do not share the same grammatical rules. Poplack (1980) argued that switching is only possible within languages that have similar surface structures and forms. Alternatively, code-mixing should not violate the surface syntactic grammars of the languages involved. The data analysis showed that the grammatical differences between Arabic and English do not affect the occurrence of code-mixing process at all. Additionally, a great number of the originated patterns of code-mixing are consistent with the grammar of Arabic and they contradict the English one. Most of these patterns provide good evidence to violate equivalence constraint The data provided examples of nonequivalence structures of Arabic and English where code-mixing occurred. Thus, although there are several grammatical differences between Arabic and English in the structure of VPs, intra-sentential code-switching is frequently occurred and a number of grammatical violations are performed as mentioned previously. Accordingly, the data assert that the equivalence constraint produced by Poplack (1980) is violated, and then it is invalid according to Jordanian Arabic -English intra-sentential code-switching.

Comparing the current study findings with other studies' findings involved different language pairs, it has been found that a number of studies present counterexamples of 'equivalence structure' constraint that violate the syntax of the languages that are in interaction. That is, many studies fight the occurrence of Poplack's equivalence constraint and go with the current study findings.

In the study of Arabic-French code-switching by Bentahila and Davies (1983) and Redouane (2005), the surface structure of the two languages was violated in terms of word order systems. The violation was also found in the absence of indefinite article 'a', that drive non-equivalence between the languages involved. Rezaeian (2009) indicated that the data of his study are not harmonious with this hypothesis and prove that code-mixing is performed although of

grammatical differences between Persian and English. Another violation of equivalence constraint is proved by Bader (2003), Berk-Seligson (1986), Sebba (1997), and Clyne (2000).

Taweel and Btoosh (2012) stated that mixing within English VP is not acceptable. This can be attributed to the fact that Arabic and English have different grammatical structures. That is, the verb phrase in Arabic sometimes consists of one word; the verb and some inflectional affixes that reflect tense, number, and gender of some items (object, subject) are being marked on it. On the other hade, Taweel and Btoosh (2012) indicated that switching using 'be' verb is possible and acceptable. Such type of switching is more acceptable when it is used to refer to adjective rather than an action. They show that the auxiliary 'be' is accepted with its English progressive shape. In other words, 'be' is deleted if the predicate is in Arabic. Finally, they confirm that mixing auxiliaries and negative words is not acceptable. Aldaw (2019) indicated that Arabic-English code-switching is not a hazard phenomenon; rather it is rule governed. The data show that although Arabic and English are not from the same family, they are mixed within and between sentences boundaries. The data show that the equivalence constraint is violated and the grammatical structure of both languages is sometimes broken.

Kniaź and Zawrotna (2021) investigated the patterns of English verbs inserted in Egyptians Arabic-English code switching. The recurrent patterns of verb insertion are as follows: First, in non-past tense inserted verbs are morphologically integrated with Arabic. Second, most third-person plural verbs in non-past forms show incomplete assimilation lacking the plural suffix *-u*. Third, past forms are inserted as either past forms or bare forms with the Arabic auxiliary to mark the tense. Fourth, English verbs are never cliticized with Arabic pronoun complements; instead, English pronouns are used. The findings show that patterns of verb insertion in Egyptians Arabic-English code-switching are consistent with the Matrix Language Frame model. All these studies go against the occurrence of the equivalence theory.

CONCLUSION AND IMPLICATIIONS OF THE STUDY

The present study introduces an insight to determine the syntactic aspects of mixing between Arabic and English within VPs. Thirteen patterns were performed in Facebook conversations between Jordanian students. Although some of these patterns break some grammatical rules of English, intra-sentential code-switching within VPs seems familiar and acceptable. In fact, the originated data indicate that intra-sentential code-switching do not affect the grammatical structure of Arabic VPs. In other words, speakers generally follow Arabic rules, and violations are not found in grammatical or structural aspects. Furthermore, the grammatical rules of English are not considered in the intra-sentential code-switching phenomenon in Jordan. That means Jordanian Arabic–English code-mixing violates the universal constraint of 'equivalence' proposed by Poplack (1980).

This study provides a potential theoretical implication for the Arabic Language Academies in the Arab World by encouraging them to cooperate to carefully ponder the effects of this code-mixing, and the Academics should coin Arabic words for all new English terms, especially, those related to the technological and scientific innovations.

RECOMMENDATIONS

It is worth noting that the current study is limited by analyzing only the grammatical structure of mixed constituents between Arabic and English within the verb phrase. Thus, further research is recommended to be conducted on analyzing the grammatical structure of mixed constituents within other phrases. In addition, the current study only adopted one of Poplack's constraints which is 'equivalence' to work on, but the other two Poplack's constraints of 'size of constituent' and 'free morpheme' were beyond the scope of this study.

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