Intra-Sentential Code-Switching among Bilingual Saudis on Twitter

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Abstract

Code switching (CS) is a common phenomenon in language contact situations wherein bilinguals utilize two languages in the same context. This study investigated the occurrence of intra-sentential code switching by 12 bilingual Saudi females on twitter who differed in age and education. The data were collected by taking screenshot for 1260 tweets. Data were analysed statistically to show the phenomena of Arabic- English code switching. Moreover, a qualitative method was used for data analysis. Findings of the study showed that code-switching was observed clearly on twitter and that intra-sentential code-switching occurs frequently. It was also observed that at the level of particular syntactic categories in Arabic-English CS, nouns were the most often switched elements in the corpus. This study focused on nouns and verbs as examples of these syntactic categories of CS. English as inserted language was mostly used by participant, so the study focused on Arabic sentences in which English is the embedded language. Finally, it is found that the most inserted words in English were related to the internet and other social aspects.

Keywords: code switching, intra-sentential code switching, Saudi bilinguals

1. Introduction

One of the sociolinguistic phenomena observed by many scholars in bilingual communication is code-switching. Code-switching occurs when a speaker alternates between two or more languages, or language varieties, in the context of a single conversation. Myers-Scotton and Ury (1977) defined code-switching as the "use of two or more linguistic varieties in the same conversation or interaction." (Cited in Fong, 2011:1) Recently, people's preference for communicating with others is by using the internet i.e. online communication, which is referred to as Computer-Mediated Communication (CMC) (Crystal, 2004:17). This term is used to describe the various types of online communication. Code-switching (CS) online has attracted the attention of linguists, who have noticed that people tend to code-switch while chatting or when writing comments in different online programs. This study aims to examine the occurrences of code-switching on twitter among Arabic English users.

In Saudi Arabia, Arabic is the official language that people use in their spoken and written discourse. It is used in the daily life of all Saudis. It is the first language people hear after they are born. Also, they are taught the Arabic language from the first stages of their learning since it is the language of the Holy Quran. Moreover, people continue their learning in Arabic until they finish their Bachelor degrees because even some science subjects are taught in Arabic. In addition to that, Arabic language is used in all the regions of Saudi Arabia. At the same time, there are other languages that are used besides Arabic. English is the second widely used language in education and communication. Recently, people started learning English at the elementary schools and continue using it until they finish studying at universities. It is the language for science, technology and medicine. Furthermore, English is the required language when applying for different jobs. In addition, English is used as a medium of communication in public places such as restaurants, coffee shops, hospitals and even in supermarkets in dealing with non-native speakers of Arabic who use it as their medium of communication. There are many international schools, in which English is the medium of instruction, spread all over the main cities of the kingdom and there are some international schools in some cities that tend to teach their students other language such as French and Spanish. However, English is considered to be the second language in Saudi Arabia because of its wider use in the daily life of the Saudis. So, bilinguals in Saudi Arabia speak English as a second language in addition to Arabic their mother tongue. Their proficiency in the second language varies; some people master the main skills of the other language whereas others are proficient only in speaking skills while their level in the other skills and grammar is low.

2. Theoritical Orientation and Review of Literature

In this part we are going to focus on some related literature concerning code switching and the previous studies on code switching online and social networking. A theoretical frame work to the study is to be discussed.

2.1 Code Switching

An important phenomenon of language contact that has attracted the attention of linguists and researchers is code switching. It is common among bilingual people who are able to use two languages. This phenomenon, investigated during second half of the twentieth century, was seen as happening randomly. However, Blom and Gumperz (1972) wrote an article about people from a Norwegian village that use two dialects when speaking in specific situations. Since then, the idea of code switching changed and different works have been presented in this field. Code switching is broadly defined as the ability of bilinguals to alternate between their two languages. (cited in Dulm, O 2007:13) "A common definition within this field refers to code-switching as the alternative use by bilinguals of two or more languages in the same conversation" (Milroy and Muysken 1995:7) cited in (Contene, -2007: 56). Meyerhoff (2006) defined code switching as moving between distinct varieties. Furthermore, Gardner-Chloros (2009) defines code-switching as a phenomenon observed in bilingual interactions, when people, who speak the same two languages or dialects, shift from one to the other in the same conversation or sentence, (cited in Alfaifi, 2007:1). Previously, researchers thought that people code switch between languages because they are either unable to separate the languages or because they are having some difficulties with them. But recently this view has completely changed. It is thought that it is normal to code switch because it is a sign of linguistic competence; that the speaker is proficient in both languages (Forslund, 2009: 16). Code switching includes the insertion of single words or larger segments. It is produced by bilingual people who vary in their level of proficiency. Muysken (2000) has differentiated between different strategies employed by bilingual people when code switching. The first strategy is alternation, this occurs when the two languages remain separated as exemplified in (1)

(1) Swahili–English

That's too much. Sina pesa.

" . . . I don't have [much] money."

The second strategy is congruent lexicalization. Here the two languages share part of the grammatical structure which enables bilingual to fill this common part with lexical elements from one of these languages as shown in example(2)

(2) Dutch–Sranan

wan heri gedeelte de ondro beheer fu gewapende machten

one whole part cop under control of armed force

"One whole part is under control of the armed forces."

The last strategy is insertion, which involves the embedding of a constituent – usually a word or a phrase – in a nested A–B–A structure, as in (3)

(3) Persian–Swedish

xob pas falsk-an pesa-aˆ

well then false-cop3pl boy-pl

"Well then boys are false." (Bullock & Toribio, 2009)

What makes people switch from one language to another? What motivates speakers to change between languages? Wardhaugh (2006) suggested that people may switch for some reasons such as solidarity, accommodation to the listener, the topic or because of the differences between speakers. Therefore, the motivation of the speaker is important in the choice of the language. In general, the sociolinguistic approach of code switching concentrates on answering the question why do bilinguals switch languages? Moreover, it is concerned with the role of social factors behind code switching. The studies of this approach try to find reasons and factors behind code switching from two perspectives, the macro-level and micro-level. In the macro-level the studies investigate the language used at a community level, whereas the micro-level focus on the interactional level. Blom & Gumperz (1972) distinguished between two kinds of code switching: situational code switching and metaphorical code switching. Situational code switching occurs when the speaker changes the language according to the situations in which the conversation takes place without changing the topic, whereas metaphorical code switching requires a change in the language according to the change of the topic. Later on they developed metaphorical code switching as conversational code switching which includes the following functions: specification, interjections, reiteration, message qualification, and personalization Vs objectivization. (Dulm, O 2007:14).

Myers-Scotton (1993) is one of the linguists who focuses on the social factors of code switching and introduces the famous "Markedness Model". She distinguishes between unmarked and marked use of language. Unmarked use refers to the expected choice of speech act, whereas marked use refers to the unexpected choice of language that contributes to the message. This model focuses on the procedure used by both listeners and speakers and judges the linguistic choice they might make then decide if it is more or less marked in a given interaction. Myers-Scotton explains the procedure used as follows: based on the communicative competence of people and their experience. They can decide if a particular choice in certain interaction type is considered unmarked. She added that the unmarked choices are those that are more or less expected according to ingredients of interaction. For her, each interaction type has Right and Obligation set (RO set) which are expected. These expected sets are referred to as unmarked way. She illustrated that by the following example:

-For bilinguals in France, the unmarked choice to use in a government office is French, not any other languages that they speak.

What is important in this model are the marked choices which refer to the unpredicted choice of language, given the RO set that is in effect. Myers-Scotton thinks that speakers make the marked choices as a kind of "negotiation for an RO set other than the one that is unmarked for the current exchange". So, the markedness model concentrates on how speakers make choices according to their goals.

Another model which relates to the social factors of code switching is the Communication Accommodation theory (1970) (Scotton, 2006:131). Howard Giles was interested in the way people change their speech according to the one they are talking to. Giles disputed that, people usually accommodated to their dialogist. They either converge (adopt similar styles of speaking) or diverge (speak differently) according to the one whom they are talking to in order to show their distinctiveness or to increase their social distance. Accommodation is considered as a general phenomenon in bilingual and monolingual communities by which speakers accommodate their speech by using various linguistic resources available to them. Unlike the markedness model the accommodation theory is listener centered.

The psycholinguistic approach to code switching focuses on the cognitive mechanism that is responsible for bilingual speech and the psychological development of the bilingual mind. It concentrates, for instance, on how speech is stored and processed in the brain of bilinguals. Linguistic approach, in turn, focuses on the knowledge of language that bilinguals must have in order to switch between languages. It is concerned with the grammatical aspects of code switching, particularly the syntactic and morphological characteristics of code switching. It is also worth mentioning that different theories have been introduced by linguists that identify structural constraints of code switching; among them is Myers-Scotton(1993) with her model of a matrix language. According to her when bilinguals code switch between two languages, there will be a dominant language 'matrix language', as she assigned, on the grammar of which the speaker can rely. The other language is considered as an embedded language from where bilingual can use morphemes. "Myers-Scotton's hypothesis is that there is always an ML in bilingual communities, and there is always only one ML at a time" (Bassiouney 2009:37)

The grammatical analysis of code switching shows that there are various types of CS that should be distinguished depending on the length and nature of the juxtaposed units of the two languages. These types are as follows: extrasentential, intersentential and intra-sentential code switching (Dulm, O 2007:15). The first type, extrasentential code switching, refers to the insertion of a tag from one language to an utterance which is completely from another language. For example in (Afrikaans language)

(4) Onee heir's 'n paar goeddjies, sorry.

Oh no here-are (TRUNC) a few thing- DIM-PL

(Oh no, there are a few things here, sorry).

Another example is the use of the words such as (*you know, I mean, right…* etc)

The second type, intersentential code switching, involves changing from one language to another between sentences. An example is the following in (Dutch language):

(5) I love Horlicks *maar hier's niks.*

but here-is(TRUNC) nothing

(I love Horlicks but there is nothing here.)

Another example from Arabic is as follows:

(6) Li hadaf or point I am looking forward for it

For me goal or point I am looking forward for it

There is a goal or point I am looking forward to achieving. (Almansour 1998: 80)

The third type, intra-sentential code switching, occurs within the same sentence. To illustrate this consider the following examples in (Afrikaans language):

(7) But it's sort of like '*n bietjie van dit en 'n bietjie van dat.*

a bit of this and a bit of that

(But it's sort of like a bit of this and a bit of that.)

Another example from Arabic language is as follows:

(8) huwa gaal I do not care

'He said, "I do not care". (Almansour 1998: 77)

2.2 Previous Studies on Code Switching in Online Communication

This section will examine previous studies related to code switching in online communication. In the literature, Tastan (2012), Urbäck (2007), Peuronen (2008), Shafie&Nayan (2013) and Cui, Y (2006) have all contributed to code switching studies relating to computer mediated communication. Tastan (2012) investigated the types of lexical borrowing and code switching used on twitter by native Turkish- speaking university students. The data for this study were collected from online written text that is available on the participants' profiles. The researcher collected about 3,860 tweets during two months. Twenty participants shared in this research; 15 were female and 5 were male. Their ages ranged from the 19 to 24. All of them were fluent in English because they studied English at university. The researcher analyzed the data by dividing all the posts into three groups. There were 3860 posts; 1- posts in English, 2- posts in Turkish, and 3- posts in English and Turkish. In the first stage he analyzed the spelling. In the second he analyzed the lexical borrowing; in the third stage the researcher analyzed the posts by dividing them into intra-sentential and intersentential code switching. The last stage involved analyzing the posts in English only. The results were as follows: participants mostly code switched when they talked about their interests, locations and sports. For other topics such as the internet or when writing about their emotions, they used either English or Turkish. Code switching is common among university students who use online communication. Intersentential switches comprised 30.7% of the total and 69.23% were intra-sentential.

Urbäck (2007) conducted a study to examine cases of Swedish-English code-switching in a bilingual discussion forum on the Internet. He investigated whether bilinguals code switch when communicating online, and if so, when and why they do that. The primary source used in that study was a discussion forum on the Internet called *Motheringdotcommune* (henceforth MDC) in addition to books, reports and articles as secondary sources. The forum

consists of six topical areas. Within each area there are sub- groups. The participants were 7 females from different nationalities, from USA, Canada and Sweden chosen according to their effective participation in the forum, their language and how they switch. The results showed that the participants whose first language was Swedish tend to use English in online communication because they have spent a long time in an English speaking country or because English is the official language in MDC. On the other hand, native speakers of English in this forum use Swedish because they have spent long time in Sweden or to signal a belonging, for example by using Swedish greetings. The bilingual users in this study switch between Swedish and English by inserting short phrases from the other language. Users tended to switch to signal their belonging to the group, and this phenomenon was most visible when they were greeting each other. The results indicated that the most common of the switches is intra-sentential code switching. The reason is that most participants are fluent in both languages, English and Swedish.

The qualitative and sociolinguistic study by Peuronen(2008) was designed to examine how bilinguals code switch and mix Finnish and English languages in a discussion forum in the internet; for Christians who are interested in extreme sports . The discussion was on a forum at the website (www.godspeech.fi) and is Finland-based. The individuals who use the forum interacted online and formed an online community. The researcher investigated how the members of the forum use English in their interaction in online activities, and how social and individual identities are constructed within lifestyle discourses of Christianity, extreme sports and youth. The researcher used the discussion forum as the main source of data. There are different sections in the website; the discussion form is one of these sections. Finnish is the main language of the posts; however English and other languages are used. The members of the community are the participants of this study. There were 100 participants; most of them were men and there were some women. Many of them introduce themselves by their names other preferred to use nick names. In addition, the researcher used the message threads as a basic unit of his research because of the use of the English language on them; 33 messages were chosen from 27 participants for the qualitative analysis. The findings revealed that code-switching was used to contextualize certain aspects of the communicative situation. In some cases it was used as a means of creating a humorous atmosphere and contributing to one's professionalism in extreme sports by the use of English. Moreover, the participants drew on English when naming their community, activities, places, tricks and equipment related to their sports. Another finding shows that participants negotiate words for communicative purposes.

Shafie & Nayan(2013) conducted a study to determine the languages code switching practice used by university students on Facebook wall post and comments. The researcher investigated 50 comments on Facebook written by 100 Malaysian students at a Malay public university, their ages ranging from 18-24 years. The first language of the participants is Bahasa Malaysia and English is the second language. There were 42 male students and 58 female; those participants were the most active users. The researchers analysed the wall posts and the code switching language in Facebook comments using Thurlow's (2003) SMS categories that contain nine orientations. The researchers used computer-mediated discourse

analysis, applying the coding and counting approach to analyse the discourse of social network sites. The results showed that students use their native language while writing in their wall posts. Additionally, they use the Malay dialects in interacting with their friends who belong to the same state. Other posts are written in English since it is the second language for the students; some posts indicate that there is code switching among the students. The same was the case for comments on Facebook, which reveal the occurrence of code switching among students. The most popular purpose for their wall posts and comments are Friendship Maintenance Orientation.

Cui, Y (2006) examined how ESL students use code switching in their literacy practices at home when utilizing computer- mediated communication. He used a qualitative paradigm and multiple case studies in order to differentiate between participants. The study was conducted in a mid-sized northern Canadian city. The sample used in this study included 4 individuals; three of them were Chinese ESL students. The selection of the sample depended on the following conditions determined by the researcher; the participants should be students of different ages and levels of education, they had to be new arrivals to Canada; finally they had to come from mainland China and speak their native language. Their ages ranged from13-25 and their education levels ranged from elementary to postsecondary. The researcher used qualitative data gathering techniques: first he used audio- taped interviews, asking open-ended questions; second, he videotaped the participants when using the computer; finally, he made use of the electronic transcripts of the online communications made by students. After collecting the data he analysed them as follows; firstly: reading the transcripts then trying to identify the topic for each one; secondly, topics were divided into categories; the last step was to integrate the categories by taking into consideration the relationships between them. At the end the researcher noticed that code-switching was deeply embedded in its contexts, and it functioned not only as a mechanism to compensate for deficient language, but also as a strategy to fulfil social, psychological or discursive purposes. Some of the code-switching strategies were affected by age and English proficiency. Analysis of the data also indicated that code-switching was beneficial, to varying degrees, to the English literacy development of these ESL students.

2.3 Social Networking

One of the categories of sites on the internet is social networking which facilitates interaction between people. Boyd & Ellison (2007) defined social network sites as "web-based services that allow individuals to (1)construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system". In 1997, social networks were established which enabled users to have their own profiles and chat with strangers on their list. Facebook, Twitter, Myspace, You Tube and Flickr are examples of social networks that contribute to communication among people.

Twitter is the social network this research will focus on by discussing a linguistic phenomenon that is common among people who tweet on this site. Twitter is an online social networking and micro blogging service that enables users to send and read short

140-character text messages, called *"tweets"*. In 2006 Jack Dorsey, Evan Williams, Biz Stone and Noah Glass introduced twitter. In 2012, more than 500 million users posted 340 million tweets. Nowadays, twitter is considered one of the ten most-visited websites. The language used in these sites is similar to oral language in that users tend to use the same language they use when speaking to a friend while using social networks.

3. Methodology

As for the research methodology, both quantitative and qualitative methods of analysis have been used. The research objectives, questions, participants and data analysis are presented in this section.

3.1 Objectives

This research aims to examine how Saudi native speakers use Arabic and English on twitter. It intends to achieve the following objectives:

1. To investigate cases of Arabic-English code-switching in bilingual communication on twitter.

2. To find out how and why bilingual users on twitter code-switch while communicating.

3. To investigate the use of intra-sentential code-switching on twitter.

3.2 Research Questions

This research is based on the following questions:

1) What is the ratio of Arabic-English code-switching on twitter comments of Arabic-English bilingual speakers?

2) Is there a relationship between the tweets' topics and the occurrence of intra-sentential code- switching?

3) What are the most commonly inserted English words within Arabic matrix sentences?

3.3 Participants

The participants involved in this study are 12 Saudi female users of twitter. Their age ranged between18-32; all of them were able to communicate in English language. They have been exposed to English language from the beginning of their intermediate school level. They have been exposed to English at university more intensively. Some of them were specialized in English language and the others were specialized in Computer Science, Financial Management and Business Administration. Three of the participants were graduates and the others were undergraduates. 105 tweets of each participant have been collected and analysed. The permission of participants was sought through the messaging service available on twitter before collecting data.

3.4 Data Collection and Analysis

The data of this study were in the form of online written texts which were collected from the social networking website "twitter". Tweets were collected by using Computer and I Phone specifically screenshots.105 screenshots for each participant were taken, the total number being 1260 tweets. Screenshots for the tweets were taken in order to save data from deletion.

To answer the research questions qualitative and quantitative methods were used. The data that were collected from the participants were analysed in terms of the types of code switching and the parts of speech of the switched words. Tweets with intra-sentential code switching were categorized according to their part of speech (noun-verb-adjective-adverb-preposition-pronoun-phrase). Each example in the analysis was followed by gloss then translated into English when Arabic is the embedded language.

4. Findings and Discussion

As mentioned earlier the data for the current study were collected through tweets of 12 female participants. All tweets with switches were analysed and classified. This section presents the result of quantitative and qualitative analysis.

4.1 Quantitative Analysis

The quantitative analysis was used in this study to show the occurrence of CS among all tweets and at which syntactic level it is widely used. Moreover, this part will shed light on the most type that was used by participants. And it will answer the research question related to the ratio of English-Arabic and Arabic-English code-switching in tweets of Arabic-English bilingual speakers.

There were 1260 tweets collected from 12 bilingual participants; among them there were only 266 tweets that have CS, the remaining 994 were either completely in English or in Arabic. Figure 1 shows the percentage of the phenomenon CS within the 1260 tweets.
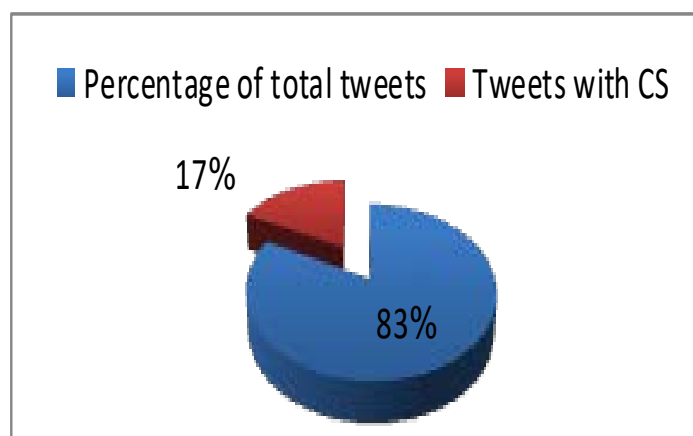

Figure 1. Occurrence of Code Switching

An important finding of this study indicates that the total number of English inserted elements is more than the total number of Arabic inserted elements. 28% of intra-sentential code switching had an English matrix sentence with Arabic words inserted within. On the other hand 72% had an Arabic matrix sentence with English words and phrases inserted within them. This finding agrees with that of Abalhassan, K. & Alshalawi (2000), Alhazmi (2013) they found that English is the mostly used and inserted into Arabic matrix. Figure 2 shows the percentage of English and Arabic as embedded language.
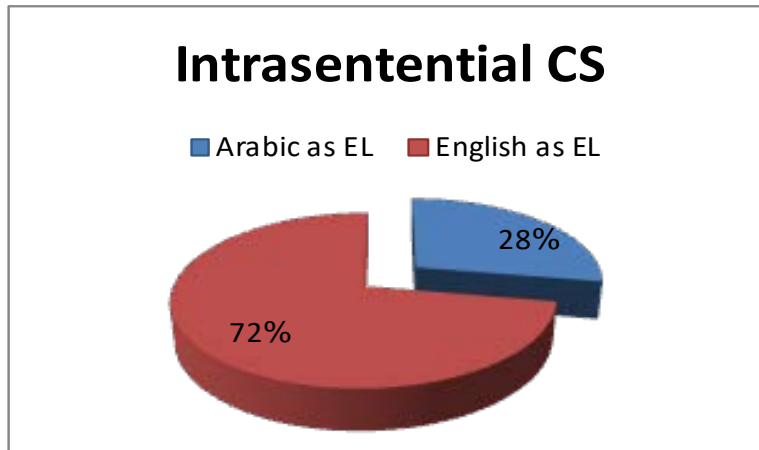

Figure 2. The Ratio of English-Arabic and Arabic-English Code-Switching

Regarding the occurrence of code switches at particular syntactic categories among the 266 tweets nouns were the most used. That agrees with the Almansour(1998) who stated that nominal is the most frequently switched among participants in his study. Figure 3 shows the distribution of a particular category of switching.
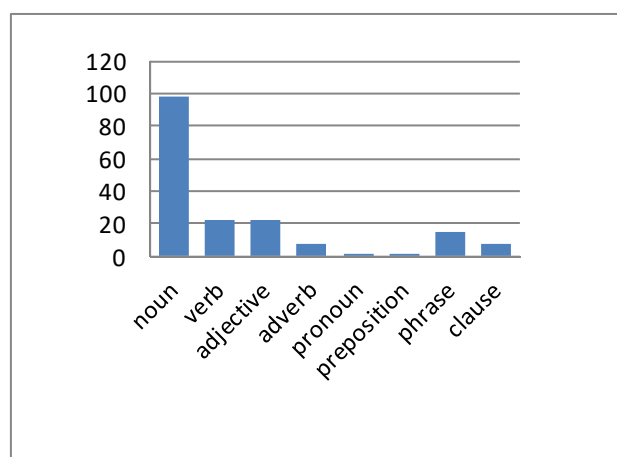

Figure 3. Frequency of Occurrence of CS According to Parts of Speech

4.2 Qualitative Analysis

The main focus of the present study is the intra-sentential code switching, so tweets were collected and analysed according to their types and where did the switches occur (at which part of speech).105 tweets have been collected for each participant, with a total number 1260 tweets for all. 266 of the tweets have the phenomenon. By analysing tweets the current research has found that most of the participants used the intra-sentential code switching with English or Arabic as embedded language. Other tweets were written using inter-sentential English –Arabic and Arabic- English code switching which is not the concern of this paper.

4.2.1 Intra-Sentential Code Wwitching

As mentioned previously intra-sentential code switching happened within the same sentence or part of the sentence. All participants use this type of CS in their tweets. 91 of total number of tweets were in intra-sentential CS. The following part will be divided into two sections; the first one when English is the embedded language, the second one will show examples of Arabic as embedded language. Each section shows examples of intra-sentential CS. Furthermore, tweets will be categorized according to the part of speech of the inserted word.

4.2.1.1 Intra-Sentential CS with English as EL

This section gives examples of intra-sentential CS in tweets that were written in Arabic with the inserted words in English. Moreover, a division into different parts of speech will be included according to the category of the inserted words. Most examples of the tweets were written in Arabic and the switched words in English with Arabic alphabets.

4.2.1.1.1 *Nouns*

The followings are tweets written in Arabic with English as the embedded language especially with noun category.

Tweet 1

Matrix Sentence	ياكثر غلطاتي بالكتابة مشكلتي ما اراجع **تويتاتي** واشوف انا ضغطت الحرف الصح والا لا
Transliteration	*Ya kathr ġaltati bi elkitabah moshkilati ma arajeʕ **tweetati** wa ashoof ana dagatt alħareff alsaħ walla la*
Gloss in English	I make so many mistakes when I write **my tweets**, my problem is that I do not check them and see if I press the correct letter or not.

Tweet 2

Matrix Sentence	هذا **الهاشتاق** التركي عن غزة الآن **ترند** على العالم شاركوا فيه باللغة الانجليزية للفت انتباه العالم لغزة
Transliteration	*hada **alhashtag** alturki ʕn ġaza alʔn **trend** ʕla alʕlem shariku feeh bi al'luġah alengilizia lylaft intibah alʕlem le ġaza*
Gloss in English	This Turkish **Hash tag** is about Gaza, now is a trending over the world, please participate in English Language to attract the attention if the world toward Gaza

In tweets 1 and 2 the users code switch with English words *tweets, hash tag* and *trend* within Arabic as the matrix sentences. These English nouns have undergone some morphological changes to assimilate with the Arabic matrix sentences. The word tweetati for instance has undergone two special morphological changes such as adaptation and assimilation. In the first instance, it has been pluralized as an Arabic entity i.e., **tweet** , **tweetat**. The suffix **–at** is her for plural marking. Furthermore, the possessive adjective suffix **–ti** has been added to it, so the word **tweetat** has become **tweetati** "my tweets". The word **hashtag** also has been given the Arabic prefix of the definite article. **Al-** to assimilate with the matrix language.

Tweet 3

Matrix Sentence	مدونة جميلة مهتمة **بالفاشن** تساعدك صاحبتها باختياراتك ذوق وراقية وجميلة راح تعجبكم تابعوها **وشيكوا ع البلوق والانستقرام**
Transliteration	*mudawnah jameelah muhtamah **bilfashion** tusaʕidak saħibatha bi'exhtiya'ratak ḏawg wa raqi'yah wa jameel'ah raħ tʕjibakum tabiʕooha wa **shay'ikoo** ʕla **alblog** wa **alinstigram***
Gloss in English	It's a nice Blog which concerns on **fashion** and the blogger will help you in choosing what fit you, you will really like it, just follow it and **check** the **Blog** and **Instigram**.

In tweet (3) there is an inserted verb in the same sentence *check* in addition to the nouns *fashion*, *blog* and *instgram*. These words have undergone some morphological adaptation such as preposition attachment as in *bilfashion* 'on fashion'. The Arabic preposition '*bi*' is attached to the word as an Arabic word inflected in such a way that it is assimilated to the Arabic original lexicon. In the same way, the other two nouns *blog* and *Instagram* have undergone the same morphological processes. The definite article al in Arabic is attached as a prefix to these nouns. They became *al-blog* 'the blog' and *al-instagram* 'the Instagram'.

Tweet 4

Matrix Sentence	المتابعات الجدد ، نزلت في **البلوق** من فترة **كورس** متكامل صممي منزلك بنفسك كل وحدة فينا تتمنى بأنها تحصل
Transliteration	*almutabʕat aljudud nazzlt fi **al-blog** min fatrah **kors** mutakamil samimi manzilik bi nefsik kul waħdah feena tatamanna bi ʔnnaha taħssil*
Gloss in English	The new followers; some time ago, I downloaded **a course** about how to design your home in **the blog,** each one of us would like to gain

Again we find that in tweet (4) the nouns *blog* and *course* have been used in Arabic context. Each of these is assimilated and adapted in one way or another as far as Arabic structure is concerned. For instance, the word *al-blog* 'the blog' above, has undergone an assimilation and adaptation to fit the Arabic pattern of definite noun when the Arabic definite article **'al-'** is attached to it.

Tweet 5

Matrix Sentence	لاحظت على بعض اللي يحسون بتعاسة وضيق وقابلية للاكتئاب يكون حولهم جو تعيس وكئيب مسلسلات تعيسة و **برودكاستات** تناقل اخبار سيئة او اشاعات **درامية**
Transliteration	*Laħḏt ʕla baʕḏ ele yħisoon bitaʕasah wa deeq wa qabiliyah li alikteeaʔb*

	*yakoon ħawlahum jaw taʕees wa kaʔeb musalsalat taʕeesah **broodkastat** tanaqul axbar sayʔah aw ishaʕat drameeyah*
Gloss in English	I have noticed that some of the depressed people who had bad mood are surrounded by an atmosphere which includes bad **dramatic** series, some terrible **broadcasts** of bad news.

In tweet 5, we find that there are two English nouns which have undergone the Arabic morphological adaptation to assimilate to the Arabic linguistic system. The word *broadcast* has been adapted to be inflected in such a way that it fits the pattern in the above example. Since broadcast is to be in plural form of Arabic the suffix '**-at**' is attached to it and it became plural noun, ***broadcast-at***.

Tweet 6

Matrix Sentence	وبدأ **السكيجول** حقه يتعبى مضبط وضعه من قبل مايطلع
Transliteration	*Wa badʔ **alskajwel** hago ya'tʕbaa mudabit wadoʕo min qabel ma yatlaʕ*
Gloss in English	His **schedule** started to be filled up, it seems that he prepared himself before the show.

In tweet (6) the word ***schedule*** has been used as English noun within Arabic sentence. This noun is also dealt with as an Arabic part of speech and the Arabic definite article '**al-**' is attached to it as a prefix, so it became ***al-skajwel***.

Tweet7

Matrix Sentence	احب آخذ **شاور** غير عن باقي الأيام اطول شوي لأن عادة اكون مستعجلة من زمان ما نزلت شيء مثل كذا **بالويكند**
Transliteration	*Min zaman ma nzalt shey mithl kiḏa. bil weekend aħib akhetḏ shower ġer ʕnn baqi alayam atwal shiway'ah lʔan ʕadatan akoon mustʕjillah*
Gloss in English	it has been long time since the last time i posted something like this: at the weekend. I like to take longer shower than other days because I am always in hurry.

In the same way, and as discussed above, in tweet (7) the user used the English words ***shower*** and ***weekend*** in Arabic sentence.

The above tweets were some examples which show the use of code-switching by different participants. This phenomenon occurred in noun category which was the most one used among other categories. This proves the results of previous studies. Most of the switched words were used repeatedly by users in different contexts especially the ones that are related to social media. For example, words such as post, blog. Moreover, words related to fashion, makeup and movies were used as embedded English words within Arabic tweets.

4.2.1.1.2 Verbs

This section will give examples of tweets that were written in Arabic with inserted verbs from English.

Tweet 8

Matrix Sentence	باضطر اسوي **انفولو** لعديد من الناس سامحوني مقدما
Transliteration	*BɁdtar asawi un __follow__ li ʕdded min an'nas samħoni muqadamann*
Gloss in English	I will make **unfollow** to some people, so forgive me please.

Tweet 9

Matrix Sentence	اضغطي**سلكت** واختاري الصور ويطلع زر الحفظ. او فيه سهم على اليسار تحت اضغطي يطلع **سيف** او **ديليت**.
Transliteration	*Edgady __select__ we extari alŚowar we yatlaʕ zer alhefd. aw feh sahem ʕla elyasar taħat edġadeh we yetlaʕ __save__ aw __delete__*
Gloss in English	press select and choose the photos then you will get the button of saving or on the left there is an arrow you just press it and you will get save or delete"

Tweet 10

Matrix Sentence	**كوبي بيست** ؟؟؟ هيوكجاي **سيريسلي** اكتب شي ثاني طيب مابي اشك بحسابك بعد
Transliteration	*Kopy peest??? hyoukojay seriously aktib sh'ay thani taeeb mabe ashuk bihisabek ba'ad*
Gloss in English	Hyoukagay seriously please don't make a copy paste, write down any thing I do not want to have any doubt about your account

Examples (8) and (9) English verbs *unfollow*, *select*, *save* and *delete* were used in Arabic sentences. In example (10) there were verbs *copy* and *paste* in addition to the adverb *seriously* were used.

The previous section gave some examples of tweets which have inserted words of verb category. Participants used English verbs within Arabic sentences. Verbs were the second category used among participants in their tweets as the code mix their sentences.

4.3 Discussion of the Results of Qualitative Analysis

This section discusses the findings of this study obtained from qualitative analysis and answers the research questions. The tweets were analysed and categorized according to their types and parts of speech. All the participants used the intra-sentential CS which is the main focus of the study. They were posting tweets in different issues, they were of different interests. It was observed that there are certain fields which have the phenomenon of CS more often than others. Such fields are fashion, makeup, drama, movies, internet and gossip. This shows that there is a strong relation between topics and the occurrence of CS. This finding supports the result of the study of Tastan's (2012) and Velásquez (2010) which showed that topics influence the use of code switching. This result agrees with the notion put forward by Wardhaugh (2006) which says that people may switch for some reasons such as accommodation to the topic.

Another finding of the study reveals that there are common words that are mostly used by participants. Although they have different interests, still many of them almost use the same

word. In tweets which were in Arabic as a matrix language (dominant) and English as embedded language (inserted) the most common used words were (post, event and block).

An important finding of this study is that the intra-sentential CS was used more often than any other types of CS. All the participants used this type in their tweets. This might be due to that it is easier to switch with a word rather than a complete sentence.

Some tweets were written completely in Arabic; others were completely in English however there were some tweets written using CS with English or Arabic as the inserted language. But the majority was in Arabic since it is the first language of all the participants, so the study focused on Arabic sentences with embedded English words. Some of the participants wrote in English for all the tweets that have been collected with some tweets that were written using CS with Arabic as the embedded language. Most of them wrote in Arabic and the inserted words were in English. It is believed that the reason for CS in this study is that participants tend to use different form of languages according to the one they are talking to, which agrees with Giles' accommodation theory (1970s) which says that people either converge (adopt similar styles of speaking) or diverge (speak differently) according to the one whom they are talking to in order to show their distinctiveness or to increase their social distance (cited in Scotton, 2006:131).

5. Conclusion

The main aim of this study was to investigate the occurrence of intra-sentential code switching among bilingual users on twitter. It also tried to find out the reasons for bilinguals to code switch from one language to another on twitter. The study has presented an overview of code switching and previous studies in the field of CS and online CS. The data were collected from 12 users of twitter by taking screenshot of their tweets. Then a qualitative and quantitative analysis of data has been done in order to answer the research questions. A summary of the qualitative and quantitative analysis of the data have been presented with the discussion of the main findings. Most of our findings are analogous to previous findings.

The main findings of the current study are that all participants used intra-sentential code switching which is the main focus of this study. Moreover, in the case of intra-sentential code switching English as the embedded language was the most used among participants, this finding agrees with findings of previous studies by Abalhassan, K. & Alshalawi (2000), and Alhazmi (2013).

This study also found that noun is the most used with CS more often than any other parts of speech whether the switched word is in Arabic or in English. That agrees with the Almansour(1998) finding. Furthermore, there is an important finding that supports Tastan's (2012) and Velásquez (2010) findings which related to the relation between topics and the occurring of code switching; users tend to use code switching when they talk about topics of their interest or related to internet.

There were common words that were mostly used by participants in Arabic and in English languages when they code switch. Arabic tweets were more common than English among participants because it is their first language.

In conclusion, the findings of this study almost support previous studies. CS is a phenomenon commonly used by Saudi female on the social network twitter in order to accommodate to the one whom they are talking to or the topic they are talking about.

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